



UNIVERSITY OF AMSTERDAM

Amsterdam School of Economics

Annual Research Report 2010





Amsterdam School of Economics

Preface

The 2010 annual research report of the University of Amsterdam School of Economics (ASE) is the first to appear under the new name of the Amsterdam School of Economics Research Institute (ASE-RI; formerly known as RESAM). The report provides information on the organisation, activities and results of ASE-RI. With the funding of the institute, staff members publish in and edit international journals, attend and organise international conferences and workshops, and write and supervise Ph.D. dissertations.

Over the past years, the number of publications in international A and B journals by ASE faculty members has been steadily increasing, and this growth has continued in 2010. The M.Phil. programme of the Tinbergen Institute, our primary source for well-qualified Ph.D. students, was considered to be of the very highest quality by an international peer review committee headed by professor Richard Blundell. This committee also evaluated the four research programmes in which ASE's Tinbergen Institute fellows participate to perform very good to excellent. The recent QS World University Rankings by Subject for the discipline Economics and Econometrics puts ASE in the top 50 worldwide, in the top 15 in Europe and 2nd in the Netherlands. I congratulate our research staff with their contributions to these important indicators of the school's research quality.

The state of affairs in the faculty in 2010 was dominated by the financial distress that arose in the beginning of the year, and the resulting faculty reorganisation and vacancy stop to counter the problems. This has impacted on the future of some of our research programmes, and the ability of other research programmes to retain their top researchers, among other things because of increased teaching loads. Furthermore, the vacancy stop also implied that our intake of new Ph.D. students from the Tinbergen Institute's M.Phil. programme, after a steady increase in previous years, was suddenly reduced to an absolute minimum. This clearly will have a negative impact on our possibilities to increase the number of finished Ph.D. over the next few years, which already has been fluctuating in recent years.

Fortunately, the faculty's financial situation has improved considerably in 2011, which will create new opportunities, at least for those research programmes that will continue to be part of our institute. Our research priority area on Behavioural Economics has continued to flourish, and new initiatives are underway to apply for large European research funds. I would like to end in thanking all research staff for their contributions, and wishing them success with their new research endeavours.

Prof. dr. H. Peter Boswijk
Director of the Amsterdam School of Economics Research Institute
August 2011

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A
THE RESEARCH INSTITUTE

CHAPTER 1: INSTITUTIONAL OVERVIEW

1.1 MISSION STATEMENT

ASE-RI (Amsterdam School of Economics Research Institute) facilitates and promotes research at ASE to foster the academic ideal of intertwined university teaching and research. The institute aims for research results that significantly improve our understanding of the operation of economic systems, the behaviour of agents in the economy and the effects of economic policies. ASE-RI aims to appraise researcher performance and to provide a directive for further research with its standards for research. Research time is allocated to researchers based on their performance.

1.2 ORGANISATION

ASE-RI, the research institute of the Amsterdam School of Economics, is one of the two research institutes of the Faculty of Economics & Business (FEB); the other being the research institute of the Amsterdam Business School (ABS-RI). ASE-RI is the successor of RESAM (Research in EconomicS and econometrics AmsterdaM), which was established in 1998 after the MUB (Wet Modernisering Universitair Bestuur: law on the modernization of university management) came into effect. ASE-RI covers the wide area of economics and econometrics.

Research is organised in Research Programmes, which are directed by Programme leaders who are experts with core positions in the curriculum. Stimulating research that significantly improves our understanding of the economy is meant as a focus on fundamental research. In many cases, the inspiration for research questions derives from practical problems in business and society as well as from pressing problems for government policies, as is only natural for a social science. But the research results should primarily be reported to the international academic community and assessed against the quality standards that apply there. Such permanent quality assessment feeds back into the quality of teaching and of advice given to business and the government. Contributions to public debates should be a consequence of developing reliable knowledge about the economy rather than a primary goal.

ASE-RI closely co-operates with the Tinbergen Institute, where many of ASE-RI's researchers are appointed as fellow. The Tinbergen Institute also acts as the graduate school for ASE-RI Ph.D. students.

1.3 STRATEGY AND POLICY

ASE-RI aims to reach its goals by organising, stimulating and monitoring Research Programmes. Annually, programme performance is assessed. Means are allocated to programmes based on performance. Research coverage is not directed and controlled by the Faculty's management, but develops in an open competitive environment. General policy issues are discussed at the annual meeting of the Council of Programme Directors.

Faculty members in the Amsterdam School of Economics are assigned time annually for research based on their publication records in the past three years. In this way ASE-RI provides incentives to increase the quality and quantity of output. Publications are graded by quality level of the outlet. For journals, ASE-RI distinguishes

- *A: excellent, international top level.* Publications set directions for research, by approach and by method, select topics and set standards for analytical and methodological level.

- *B: good international level.* Publications meet high analytic and methodological standards but have far less influence on direction and standards for future research.
- *Other refereed and non-refereed journals.* Journals satisfy the minimum norm of aiming for an international or national audience, applying blind refereeing, and publish in an accessible language. Analytical and methodological standards satisfy a generally accepted minimum level.

ASE-RI has drawn up a list of rankings of publication outlets (journals, publishing houses, conference proceedings (see the ASE-RI website www.ase.uva.nl/aseresearch). The minimum norm for adequate research performance is formulated as 100 points over the past three years. An A-level publication counts for 100 points and a B-level counts for 50 points. Other publications are worth no points. Individual authors of a publication with N authors each get a share of $2/(1+N)$ points of the publication. Research time assigned to individuals is related to publication points over the past three years as follows:

100 or more:	0.5 fte
50-99:	0.25 fte
1-49:	0.125 fte
0:	0 fte

For faculty members with part-time positions, norms and research time are adjusted proportionally. Fellows of the Tinbergen Institute, the graduate research school in which UvA, EUR and VU co-operate, have a five year protection period of their research time at the maximum of 0.5 of their working hours. Admission as TI Fellow is based on A- and B-level publications only (TI has its own grading of publications). New appointees are allotted the maximum research time for a period of three years.

ASE-RI also stimulates concentration of the School's research in Research Programmes by other means (such as providing an annual budget for conference visits and other academic activities to the research programmes). Once a year ASE-RI hosts a meeting of the Council of Programme Leaders to discuss the results of the past year and plans for the future.

Box 1: Research Highlight: Maurice Bun (UvA-Econometrics)

In economics typically observational or nonexperimental data are used for policy intervention analysis or programme evaluation. A major issue is selection bias or omitted variables bias. We should be confident that unobserved determinants of the outcome variable of interest are uncorrelated with the policy intervention. The use of longitudinal or panel data instead of cross-section analysis can be of considerable advantage in controlling for these unobserved systematic differences between entities (individuals, firms, sectors, regions) affected and not affected by the policy change or treatment.

In my NWO-VIDI project we aim at developing accurate statistical inference methods for panel data regression models used for policy intervention analysis. Although selection bias can be mitigated by the use of panel data, there still remain other important threats to the internal validity of such research results. In the research project we analyse causal inference with panel data models allowing for (1) endogenous policy interventions; (2) dynamic adjustment processes; (3) extensive modelling of unobserved heterogeneity; (4) heterogeneous causal effects.

In applied economic research standard practice nowadays is to use Instrumental Variables (IV) methods or the Generalized Method of Moments (GMM) to overcome these various endogeneity and parametrization issues. At the same time, however, application of IV or GMM inference methods has proved to be notoriously difficult due to, among other things, weak identification issues and lack of invariance with respect to crucial nuisance parameters. Regarding the use of IV and GMM methods for panel data models we aim at developing: (1) IV/GMM based statistical inference methods robust for number and weakness of instruments; (2) IV/GMM testing procedures for detecting weak instruments; (3) alternative inference procedures with null distributions largely invariant to important nuisance parameters; (4) alternative models and methods allowing for time varying unobserved heterogeneity and heterogeneous causal effects.

Keywords: causal effect, generalized method of moments, instrumental variables, panel data, policy intervention



CHAPTER 2: INPUT

2.1 RESOURCES AND OTHER PERSONNEL

Personnel policy and human resource management is the domain of the department chairs. ASE-RI encourages the departments to hire good researchers and to stimulate faculty to increase the quality and quantity of academic publications, and has a vote in promotion and tenure decisions. Broader strategy issues concerning hiring and firing are discussed within the Amsterdam School of Economics management team and this has resulted in a document on personnel policies in which the requirements that current and new staff should meet are clearly defined. Tenured positions are only awarded to people who meet the admission requirements for fellowship of an accredited research school (preferably the Tinbergen Institute).

The tables below give information on ASE-RI faculty. Table I shows that the overall research capacity has picked up again after a decline in the previous three years. That decline was mainly due to the decrease in the number of starting Ph.D. students during 2006 and 2007, for which the reason was insufficient outflow of students from the Tinbergen Institute research master (M.Phil.) to fill all available positions. In 2008 that outflow increased which resulted in a small increase in the total number of Ph.D. students. Another reason for the decline in research FTE can be found in the decrease in staff hired in the second flow of fund which contains the NWO grants. This included the research programmes of Human Capital and Equilibrium, Expectations and Dynamics who administer projects like Scholar, TIER and CeNDEF, all funded by NWO grants. In 2010 research FTE increased, because of an increase in staff hired in the second and third flows of funds. The FTE for Ph.D. students has decreased slightly compared to 2009, but has increased compared to previous years.

Table I: Input research staff at institutional level

INPUT ASE-RI 2010	fte	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		22,80	23,33	23,91	25,73
WP 2 (second flow of funds, excl. Ph.D.'s)		13,07	7,86	5,39	6,64
WP 3 (third flow of funds, excl. Ph.D.'s)		34,29	35,61	34,40	34,96
Ph.D. students		13,95	14,75	17,64	16,60
Total Research staff		84,11	81,55	81,34	83,93
Support staff RESAM (bureau)		0,58	0,80	0,80	0,84
Total Staff		84,69	82,35	82,14	84,77

Table II: Input research staff at programme level

<i>UvA-Econometrics</i>	fte	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		4,34	4,24	4,71	5,73
WP 2 (second flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
WP 3 (third flow of funds, excl. Ph.D.'s)		0,10	0,10	0,10	0,10
Ph.D. students		2,60	2,30	1,80	0,00
Total Research staff		7,04	6,64	6,61	5,83
<i>Operations Research & Management</i>	fte	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		2,10	2,19	2,62	2,45
WP 2 (second flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
WP 3 (third flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
Ph.D. students		1,22	0,63	0,30	0,00
Total Research staff		3,32	2,81	2,82	2,45

<i>Equilibrium, Expectations & Dynamics</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		2,15	2,62	3,08	2,86
WP 2 (second flow of funds, excl. Ph.D.'s)		3,90	1,88	0,80	0,80
WP 3 (third flow of funds, excl. Ph.D.'s)		1,00	0,70	0,69	1,11
Ph.D. students		2,00	2,40	2,60	2,55
Total Research staff		9,05	7,60	7,17	7,32
<i>Actuarial Science</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		1,09	1,36	1,79	1,75
WP 2 (second flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
WP 3 (third flow of funds, excl. Ph.D.'s)		1,84	1,84	0,61	0,51
Ph.D. students		0,93	1,46	1,10	0,70
Total Research staff		3,86	4,66	3,50	2,96
<i>Mint</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		3,86	3,94	2,88	2,95
WP 2 (second flow of funds, excl. Ph.D.'s)		1,87	1,21	1,13	1,88
WP 3 (third flow of funds, excl. Ph.D.'s)		0,26	1,16	1,77	1,33
Ph.D. students		0,52	1,44	3,10	3,00
Total Research staff		6,51	7,75	8,88	9,16
<i>Human Capital</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		2,46	2,69	3,40	4,05
WP 2 (second flow of funds, excl. Ph.D.'s)		2,97	1,05	0,33	1,94
WP 3 (third flow of funds, excl. Ph.D.'s)		1,92	2,35	4,05	2,92
Ph.D. students		2,10	1,80	2,10	3,70
Total Research staff		9,45	7,89	9,88	12,61
<i>History & Methodology of Economics</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		2,95	2,34	1,67	1,71
WP 2 (second flow of funds, excl. Ph.D.'s)		0,58	0,20	0,40	0,00
WP 3 (third flow of funds, excl. Ph.D.'s)		0,00	0,00	0,10	0,11
Ph.D. students		0,60	0,68	1,20	1,20
Total Research staff		4,13	3,22	3,37	3,02
<i>Experimental & Political Economicis</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		2,42	2,83	2,57	3,33
WP 2 (second flow of funds, excl. Ph.D.'s)		3,45	2,62	1,33	0,75
WP 3 (third flow of funds, excl. Ph.D.'s)		1,25	0,25	0,00	0,00
Ph.D. students		3,10	3,98	4,30	4,35
Total Research staff		10,22	9,68	8,20	8,43
<i>Industrial Org., Competition Pol. & Regulation</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		1,19	0,88	1,19	0,90
WP 2 (second flow of funds, excl. Ph.D.'s)		0,30	0,90	1,40	1,27
WP 3 (third flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
Ph.D. students		0,45	1,08	1,14	1,10
Total Research staff		1,94	2,86	3,73	3,27
<i>SEO</i>	<i>fte</i>	2007	2008	2009	2010
WP 1 (first flow of funds, excl. Ph.D.'s)		0,24	0,24	0,00	0,00
WP 2 (second flow of funds, excl. Ph.D.'s)		0,00	0,00	0,00	0,00
WP 3 (third flow of funds, excl. Ph.D.'s)		27,92	29,21	27,08	28,88
Ph.D. students		0,88	0,06	0,00	0,00
Total Research staff		29,04	29,51	27,08	28,88

Most faculty are in the ranks of professor and Ph.D. student (the number of researchers (oz) is higher than the number of Ph.D. students, but 85% of researchers in table III are working at SEO Economic Research). Overall there seems to be a healthy mix of researchers in different stages of their career, although the number of Postdocs is low and some programmes might benefit from a more balanced spread in ranks.

Table III Ranks at programme level

Research programme	Hgl		Uhd		Ud		Oz		Pdoc		Ph.D.		Guest		Total	
	#	fte	#	fte	#	fte	#	fte	#	fte	#	fte	#	fte	#	fte
UvA- Econometrics	7	1,21	3	1,50	3	1,42	-	-	-	-	3	1,20	0	0,00	16	5,33
Operations research	3	0,70	2	0,68	3	1,07	-	-	-	-	-	-	-	-	8	2,45
Equilibrium, expectations & dynamics	1	0,50	3	0,70	4	1,36	-	-	3	1,11	5	2,55	-	-	16	6,22
Actuarial science	7	1,31	-	-	3	0,95	1	0,00	-	-	4	0,70	-	-	15	2,96
Other research quantitative economics	1	0,40	1	0,40	-	-	-	-	-	-	4	1,90	-	-	6	2,70
MInt	7	2,01	1	0,50	4 [^]	1,25 [^]	-	-	4	2,30	8	3,00	6	0,10	30	9,16
Human Capital	9	4,17	-	-	3	1,48	5	3,09	1	0,20	7	3,10	10	0,00	35	12,04
Methodology & History of Economics	3	0,41	3	1,12	1 [^]	0,29 [^]	-	-	-	-	2	1,20	3	0,00	12	3,02
Experimental & political economics	4	2,00	-	-	3	0,91	1	0,75	1	0,00	9	4,35	5	0,00	23	8,01
Industrial org., Competition pol.& Regulation	2	0,60	-	-	3	1,57	-	-	-	-	3	1,10	-	-	8	3,27
Other research economics	-	-	1	0,08	6 [^]	0,5 [^]	2	0,80	-	-	1	0,20	2	0,00	12	1,58
SEO economic research	3	1,66	-	-	-	-	35	27,22	-	-	-	-	-	-	38	28,88
Total	47	14,97	14	4,98	22	8,76	44	31,86	9	3,61	46	19,30	26	0,10	219	85,62

* hgl=professor, uhd=associate professor, ud=assistant professor, oz=researcher, pdoc=postdoctoral fellow

[^] Includes docent=lecturer

2.2 RESOURCES, FUNDING AND FACILITIES

The ASE-RI budget is allocated to non-staff cost centres. Most of this non-staff funding is spent on the Tinbergen Institute, where it is used to cover the expenses of the M.Phil. programme, courses for Ph.D. students and the organisation of seminars. ASE-RI is funding three projects, namely AIAS, TIER and CASE. Another larger part of the ASE-RI budget concerns funding of the research priority area ‘*Behavioural Economics*’.

Besides funds allocated to fixed cost-centres to meet obligations made in the past, the ASE-RI budget contains funds distributed over the research programmes. The allocation of part of this funding is based on the size of the programme (fte). Programme leaders are free to use money for any research related activities of programme members, such as visiting conferences, conducting experiments and collecting data. Besides the direct funding of research programmes, professors who successfully deliver a Ph.D. are granted a bonus. Dissertations written within 55 months (42 for Ph.Ds with a 3-year appointment) after their appointment are granted twice the standard amount. Although the direct funding of research programmes remained equal in 2010 compared to 2009 and number of Ph.Ds had increased in 2010, the overall allocation was lower in 2010. A uniform reduction of 30% was applied, to help reduce material costs for the Faculty.

CHAPTER 3: CURRENT STATE OF AFFAIRS

3.1 PROCESSES IN RESEARCH, INTERNAL AND EXTERNAL COLLABORATION

As explained in previous chapters, ASE-RI allocates resources based on past performance. ASE-RI stimulates and facilitates application for external funding (NWO, KNAW, EU). In general, the research institute tries to stimulate an active research environment, by organising a weekly general seminar, where participants from all Research Programmes meet, and it tries to assist programme members, when necessary, by providing them with information and administrative support. The overall quality of the various seminar series is good. Especially in the Tinbergen series foreign speakers are usually invited and the debates are lively.

Actual research management takes place within the Research Programmes. Decisions on research strategies, research topics, joint work, participation in international networks, publication outlets are all taken within these Programmes, sometimes by the Programme director, but mostly in an informal way by direct communication and interaction within these groups. Research groups are typically small and interaction is frequent, direct and effective.

Box II: Seminar series organised in co-operation with ASE-RI

Economics Colloquia

Organisation: Sander Onderstal, Jeroen van de Ven, Mikail Anufriev & Adriaan Soetevent

DNB Macro Seminars at the Tinbergen Institute

Organisation: Wouter den Haan

Tinbergen Institute Econometrics Seminars & Workshops

Organisation: Simon Broda & Michael Massmann

KAFEE Lunch seminar

Organisation: Jona Linde, Jacopo Mazza, Saeed Mohammadian Moghayer & Markus Kirchner

CREED-Tinbergen series in Institutions and Decision Analysis

Organisation: Gonul Dogan

Tinbergen Institute Ph.D. Lunch Seminars Series

Organisation: Roel van Veldhuizen & Robert Scholte

Tinbergen Empirical Microeconomics Seminars

Organisation: Erik Plug, Monique de Haan

AIAS lunch seminars

Organisation: Kea Tijdens

Another way in which ASE-RI creates a stimulating research environment is by funding and participating in the Tinbergen Institute (TI). Two other Dutch universities (Erasmus University and VU University) participate in the TI. It is their joint graduate school and facilitates exchange amongst its fellows (top researchers of the three participating faculties) by hosting seminar series and publishing a discussion paper series.

As a graduate school, the Tinbergen Institute offers a two-year research master (Master of Philosophy in Economics). These two years are part of a five-year Ph.D. track. The advantage of this system is that it offers students an excellent research-oriented two-year programme with good opportunities to meet top-level supervisors (TI-fellows).

The number of students starting a Ph.D. project within ASE-RI was uneven in recent years but now seem to stabilize around an annual inflow of around ten. As can be seen from table V, there are major differences between the flows of fund. But in general we see a higher influx of externally funded Ph.D.s.

Table IV: Ph.D. Inflow 2000-2010 (ASE-RI)

<i>Cohort</i>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	<i>Average</i>
1st flow of fund projects	9	1,75	18	2,75	6	1	4,5	4	7	5	3	5,6
2nd flow of fund projects	0	0,25	3	0	4	0	3	2	4	2	1	1,8
3rd flow of fund projects	0	0	0	0,25	0	2	1,5	2	0	1	3	0,9
Total projects started	9	2	21	3	10	3	9	8	11	8	7	8,3

The jump from 2001 to 2002 was due to postponing entry as a result of a new system of financial support¹. The strong drop in 2003, 2004 and 2005 was a consequence of a financial shortage and, since all projects run at least four years, because of the high number of projects started in 2002 that are still weighing down on the budget. The last two years the outflow of students who completed their M.Phil. at the Tinbergen Institute was sufficient to fill in all of the vacancies, so the shortage 2005 and 2006 did not seem to persist.

Table V: Ph.D. graduations by cohort (FEB)*

<i>Cohort</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	<i>Total/ Average</i>
Projects started	16	15	12	3	28	8	14	8	17	121
Graduated/Total	9/16	11/15	7/12	3/3	16/28	5/8	8/14	4/8	5/17	68/121
Fraction graduated from total	56%	73%	58%	100%	57%	63%	79%	50%	29%	56%
Graduated within 60 months	5/9	3/11	3/7	1/3	10/16	2/5	4/8	3/4	5/5	36/68
Fraction grad. within 60 months	56%	27%	43%	33%	63%	40%	50%	75%	100%	53%
Av. duration to completion in m.	65	69	60	65	58	63	62	54	43	61

* Including all FEB Ph.D. students (also those now under the Amsterdam Business School Research Institute)

As can be seen in table VI, on average, graduates at the FEB needed 60 months from start of the contract to actual graduation. If a thesis has been accepted by the supervisor, it easily takes four months until actual graduation (6 weeks for the committee to read and react, communication to the dean and the office of the *pedel*, time to print, etc). Adding queuing time for the auditorium, a lag of up to six months after the expiry date of the contract time is quite normal. Hence, average completion time of 60 months, compared to a formal minimum of some 54 months is not bad. Reason for real concern is the overall low percentage of graduations (58%). It is, however, expected that this figure will rise when the new system, in which excellent students receive a comprehensive two-year research-training programme before entering the Ph.D., will have become fully operational. If we look at the table VII we see a slightly better figure for the ASE-RI Ph.D.s. This is partly due to the fact that the relative weight of the most recent years is higher, since they naturally score better because part of these cohorts still has to graduate.

¹ The 'bursaal'-system was abolished in favor of the 'AIO'-system. In the former system Ph.D. students are not employed by the university but received a scholarship whereas in the latter system the Ph.D. students are employees with concomitant rights and legal positions.

Table VI: Ph.D. graduations by cohort (ASE-RI)

<i>Cohort</i>	1998	1999	2000	2001	2002	2003	2004	2005	2006	<i>Total/Average</i>
Projects started	9	5	9	2	21	3	10	3	9	71
Graduated/Total	6/9	5/5	6/9	2/2	13/21	0/3	3/10	1/3	1/9	37/71
Fraction graduated from total	67%	100%	67%	100%	62%	0%	33%	33%	11%	52%
Graduated within 60 months	4/6	2/5	2/6	0/2	9/13	0/0	3/3	1/1	1/1	22/37
Fraction grad. within 60 months	67%	40%	33%	0%	69%	0%	100%	100%	100%	59%
Av. duration to completion in m.	60	67	51	68	51	-	56	49	40	53

3.2 ACADEMIC REPUTATION

A ranking published in 2003, drawn up for the European Economic Association, puts the FEB at rank 10 in Europe. The ranking covers the period 1995-1999 and is based on thirty prestigious journals². Tilburg takes up rank 1 in Europe, Erasmus is at 15, VU at 30, Maastricht at 31 and Groningen at 60. A ranking based on publication in some 650 journals in the period 1994-1998 puts UvA at rank 7 in Europe (Tilburg at 5, EUR at 8, VU at 19, Maastricht at 27 and Groningen at 29). According to comparisons presented in another study, using a more statistical approach and based on list of top journals, FEB held the sixth position of the top European institutes, just behind the University of Oxford³.

In 2010, CentER, the research institute in economics of Tilburg University, drew up the Top 100 Worldwide Economics Schools Research Ranking based on research contributions over the period 2005-2009⁴. The University of Amsterdam ranked 2nd in the Netherlands, 6th in Europe, and 28th worldwide. This differs markedly from the results of the ESB Economentop of 2010, where UvA ranked 6th in the Netherlands; the difference is likely to be related to the use of impact factors in the ESB Economentop, which is going to be adjusted as of next year.

Finally, the 2011 QS World University Rankings by Subject puts FEB at rank 44 for the discipline Economics and Econometrics (12th in Europe, 2nd in the Netherlands).

In 2010 an international peer review committee consisting of prof. Richard Blundell, prof. Robert Engle, prof. Andreu Mas-Colell, prof. Torsten Persson and prof. Tony Venables judged that the Tinbergen Institute has reached a stage to become a truly world class institution attracting the very top students and researchers in economics and finance from around the world. The research masters and graduate programmes were judged to be of the very highest quality. Moreover, the four research groups within the Tinbergen Institute, in each of which ASE-RI researchers are well represented, were scored on a 20 point scale for quality, productivity, relevance and viability; the scores were 18 for Institutions and Decision Analysis, 17.5 for Financial and International Markets, 18.5 for Labour, Region and Environment, 17.5 for Econometrics and Operations Research.

Another measure to assess the quality of ASE-RI's academic reputation is to look at the editorial positions its staff has. Table VIII indicates that many faculty members take up many positions as editors or associate editors of international journals. Membership of editorial boards is also frequent.

² P. Kalaitzidakis, T. Mamuneas & T. Stengos (2003). Rankings of economic journals and institutions in economics. *Journal of the European Economic Association*, 1, (6), 1346-1366.

³ M. Lubrano, L. Bauwens, A. Kirman & C. Protopopescu (2003). Ranking Economics Departments in Europe: A Statistical Approach. *Journal of the European Economic Association*, 1, (6), 1367-1401.

⁴ <https://econtop.uvt.nl/rankinglist.php>.

Table VII: Editorial positions in academic international journals

Editors			
Name	Editorship	Journal	Ranking
Adan, I.J.B.F.	Associate editor	<i>Queueing Systems</i>	A
Adan, I.J.B.F.	Associate editor	<i>PEIS</i>	B
Adan, I.J.B.F.	Associate editor	<i>Statistica Neerlandica</i>	B
Adan, I.J.B.F.	Associate editor	<i>Mathematical Methods of Operations Research</i>	B
Adan, I.J.B.F.	Area editor	<i>Asia-Pacific Journal of Operations Research</i>	
Adan, I.J.B.F.	Guest editor	<i>Special Issue of Annals of Operations Research: Polling Systems</i>	B
Baarsma, B.E.	Member editorial board	<i>Tijdschrift voor Toezicht</i>	
Beetsma, R.M.W.J.	Associate editor	<i>CE/Sifo Economic Studies</i>	
Beetsma, R.M.W.J.	Associate editor	<i>Journal of Economic Literature</i>	A
Boswijk, H.P.	Guest editor	<i>Journal of Econometrics Annals (Vol. 158(1): special issue on Twenty Years of Cointegration)</i>	
Boumans, M.J.	Member advisory board	<i>Erasmus Journal for Philosophy and Economics</i>	
Boumans, M.J.	Associate editor	<i>Journal of Economic Methodology</i>	B
Boumans, M.J.	Co-editor	<i>Journal of the History of Economic Thought</i>	B
Boumans, M.J.	Member scientific committee	<i>Revue de Philosophie Économique</i>	
Davis, J.B.	Editor	<i>Advances in Social Economics book series, Routledge</i>	
Davis, J.B.	Co-editor	<i>Journal of Economic Methodology</i>	B
Davis, J.B.	Member editorial board	<i>Oeconomia</i>	
Haan, W.J., den	Associate editor	<i>Economica</i>	B
Haan, W.J., den	Advisory editor	<i>Journal of Economic Dynamics and Control</i>	A
Haan, W.J., den	Associate editor	<i>Journal of Money Credit and Banking</i>	
Diks, C.G.H.	Associate editor	<i>Studies in Nonlinear Dynamics in Econometrics</i>	B
Does, R.J.M.M.	Member editorial advisory board	<i>International Journal of Lean Six Sigma</i>	
Does, R.J.M.M.	Member editorial board and member advisory board	<i>Quality Engineering</i>	
Does, R.J.M.M.	Column editor	<i>Quality Engineering</i>	
Does, R.J.M.M.	Member editorial board	<i>Quality Technology and Quantitative Management</i>	
Ewijk, C. van	Editor	<i>De Economist</i>	B
Gooijer, J.G. de	Associate Editor	<i>International Journal of Forecasting</i>	B
Gooijer, J.G. de	Associate Editor	<i>Empirical Economics</i>	B
Goovaerts, M.J.	Editor	<i>Insurance, Mathematics and Economics</i>	A
Goovaerts, M.J.	Editor	<i>Journal of Computational and Applied Mathematics</i>	B
Hartog, J.	Member editorial board	<i>Economics of Education Review</i>	B
Hinloopen, J.	Associate Editor	<i>Review of Industrial Organization</i>	B
Hommers, C.	Associate editor	<i>Computational Economics</i>	B
Hommers, C.	Associate editor	<i>Journal of Nonlinear Science</i>	
Hommers, C.	Associate editor	<i>Journal of Economic Behavior & Organization</i>	A
Hommers, C.	Editor	<i>Journal of Economic Dynamics and Control</i>	A
Hommers, C.	Associate editorial board	<i>Journal of Economic Interaction and Coordination</i>	
Hommers, C.	Associate editor	<i>Macroeconomic Dynamics</i>	B
Kaas, R.	Managing editor	<i>Insurance: Mathematics and Economics</i>	A
Kiviet, J.F.	Member editorial board	<i>Foundations and Trends in Econometrics</i>	
Kleibergen, F.R.	Associate editor	<i>Economics Letters</i>	B
Mast, J. de	Member editorial board	<i>Quality Engineering</i>	
Mata, T.	Member editorial board	<i>Journal of Economic Methodology</i>	B
Morgan, M.S.	Member editorial board	<i>History of Political Economy</i>	A
Morgan, M.S.	Member editorial board	<i>Journal for the History of Economic Thought</i>	B
Morgan, M.S.	Member editorial board	<i>Journal of Economic Methodology</i>	B
Morgan, M.S.	Member editorial board	<i>Philosophy of Science</i>	B
Núñez Queija, R.	Associate editor	<i>Mathematical Methods of Operations Research</i>	B
Núñez Queija, R.	Associate editor and volume editor	<i>Performance Evaluation</i>	A
Núñez Queija, R.	Technical Program Committee Chair	<i>Performance 2010</i>	
Offerman, T.J.S.	Associate editor	<i>Games and Economic Behavior</i>	A
Offerman, T.J.S.	Member editorial board	<i>Experimental Economics</i>	B
Onderstal, S.	Editor	<i>TPE Digitaal</i>	
Oosterbeek, H.	Member editorial board	<i>Economics of Education Review</i>	B
Oosterbeek, H.	Member editorial board	<i>Effective Education</i>	
Praag, C.M. van	Editor	<i>Small Business Economics</i>	B
Schram, A.	Advisory editor	<i>Experimental Economics</i>	B
Sonnemans, J.	Associate editor	<i>European Economic Review</i>	A
Sonnemans, J.	Member editorial board	<i>Journal of Economic Psychology</i>	B
Sonnemans, J.	Member editorial board	<i>Quantitative Finance</i>	B

3.3 OVERVIEW OF RESULTS

Figure I: Number of publications 2004-2010

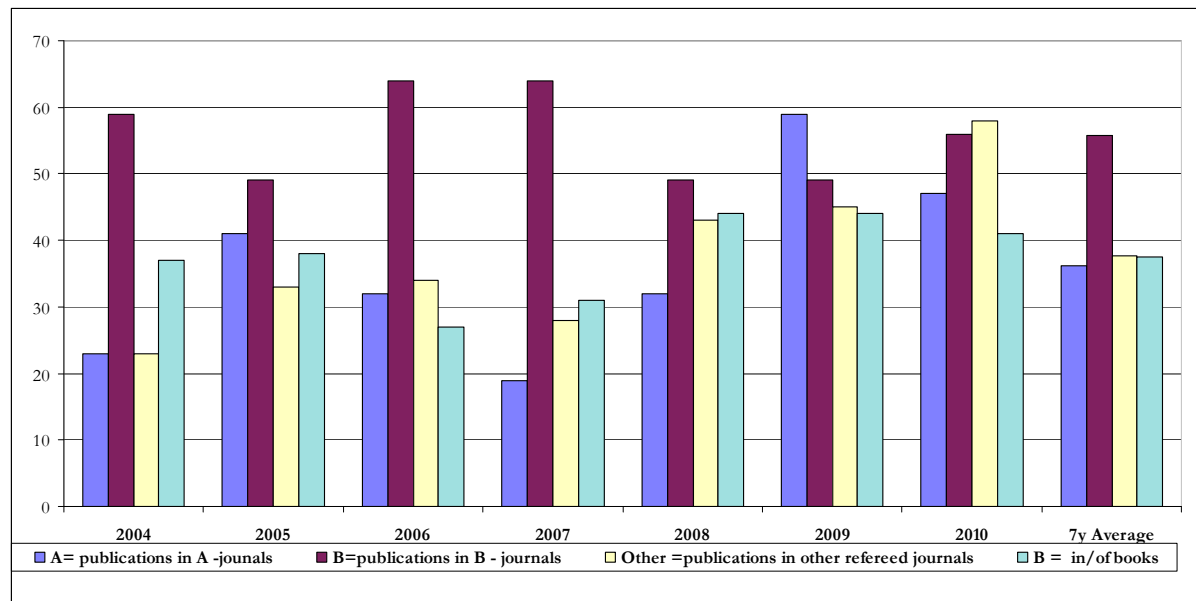


Table VIII: Publications 2004-2010

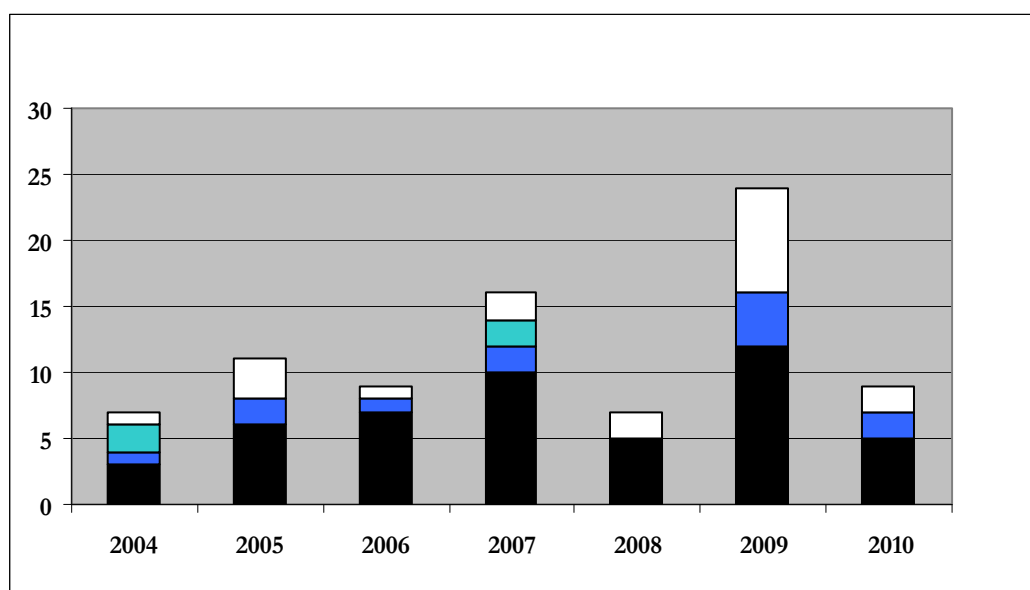
	2004	2005	2006	2007	2008	2009	2010	7y Average
A= publications in A-journals	23	41	32	19	32	59	47	36
B= publications in B-journals	59	49	64	64	49	49	56	56
Other =publications in other refereed journals	23	33	34	28	43	45	58	38
B = in/of books	37	38	27	31	44	44	41	37
Total:	142	161	157	142	168	197	202	154

Figure 1 and Table VIII show a growing output. Although the increase in 2010 was mainly due to a higher amount of B and other publications, ASE-RI has been quite successful in increasing the output overall since 2004. The separate output of different programmes is shown in table X.

Table IX: Aggregated results of the institute

Research programme									Books	Ph.D. theses	Prof. publ.	Pop. publ.	Working papers	Fte WP 1st-3rd FoF
	refereed journals		other journals		Book chapters			Proceedings						
	A	B	other	A	B	Other								
UvA-Econometrics	6	5	4	1	0	2	0	0	0	0	0	0	13	5,83
Operations Research	5	7	2	0	0	0	0	1	0	1	0	0	6	2,45
Equilibrium, Expectations and Dynamics	4	6	1	0	0	1	0	1	3	1	4	2	11	7,32
Actuarial Science	5	1	1	2	1	0	1	0	0	1	12	0	6	2,96
Mint	13	8	4	9	2	0	3	0	1	2	2	8	24	9,16
Human Capital	4	17	12	1	0	0	5	0	2	1	10	38	33	12,61
History & Methodology of Economics	2	1	3	6	1	0	3	0	3	0	0	1	2	3,02
Experimental & Political Economics	5	7	2	0	0	1	0	0	0	1	3	0	26	8,43
Industrial Org., Competition Pol. & Regulation	2	0	3	0	0	1	0	0	3	2	10	0	7	3,27
SEO-Amsterdam Economics	0	1	19	71	0	0	4	3	3	0	1	8	3	28,88
Other Research KE	0	0	0	5	0	0	0	0	0	0	0	0	0	
Other Research AE	0	0	4	0	0	0	0	1	0	0	0	5	16	
Total	46	53	55	95	4	5	16	6	15	9	42	62	147	
Aggregated total				154				25						

Figure II: ASE-RI Dissertations



*Category I: Ph.D. students who worked at FEB and graduated at FEB, II: external candidates who graduated at FEB, III: FEB staff that graduated elsewhere, IV: non-FEB students who graduated elsewhere with a FEB promotor.

In comparison to recent years, 2010 was not such a successful year in terms of ARE-RI Ph.D. dissertations. There is no reason to suggest that this would persist in the near future.

3.4 RELEVANCE TO SOCIETY

Although the main aim of ASE-RI is to let its research contribute to the international academic discourse, most research done within ASE-RI programmes contributes in several ways to society at large. Some examples are given here but more detailed information can be found in the programme sections in part B of this report.

The Human Capital research programme participates in TIER, an inter-university top Institute that conducts research in the field of evidence based education. The Top Institute wants to develop knowledge of 'evidence based education' that can be utilised by: 1) the Ministry of Education, Culture and Science in policy preparation and evaluation; 2) the educational practice – for example in educational institutions – in the allocation of resources and in the decision making process when choosing between educational theories; and 3) parents and students when choosing a school or training.

Researchers from the programmes MInt and Actuarial Science have strong ties with NETSPAR (network for studies on pensions, aging and retirement) and their research results will strongly impact the ways in which government and society will deal with the problems in these areas. In addition, MInt has Ph.D.s financed by De Nederlandsche Bank.

SEO Economic Research carries out contract research for ministries and public organisations, private companies and non-profit institutions, nationally and internationally. SEO distinguishes itself from other research bureaus by its analytical approach. Modern economic analysis is applied to practical issues. Empirical questions are tackled with the econometrics toolkit.

CHAPTER 4: RESEARCH PRIORITY AREA: BEHAVIOURAL ECONOMICS

4.1 BACKGROUND

The Board of the University of Amsterdam set out a policy to create fifteen Research Priority Areas ("onderzoekszwaartepunten") to move already promising areas to further excellence. Behavioural Economics had been selected as one of them. Behavioural Economics is an important field within the Amsterdam School of Economics (ASE). The ASE has the advantage that it has already had a center for experimental economics performing laboratory experiments (CREED) for more than 15 years. Within the Amsterdam School of Economics, CREED is clearly the most successful research group in terms of publications in highly ranked international journals.

The Amsterdam School of Economics wants to keep its leading position in Behavioural Economics in the Netherlands and in Europe. Now that it is a research priority area, additional resources are available. These resources are allocated wisely through a committee. Researchers who need money for running experiments can apply and the committee allocates resources to promising research proposals. Furthermore, some of the resources will be used to improve the research environment. Examples include the visiting costs in case of joint projects with researchers abroad, the training of Ph.D. students and organising workshops.

4.2 FOCUS

The Research Priority Area Behavioural Economics started late 2008. The goal of the Priority Area is to promote research in the field of Behavioural Economics. Behavioural Economics focuses on economic decision-making and goes beyond traditional economic theories that assume rationality and narrow self-interest: social preferences, emotions and bounded rationality are taken seriously. Behavioural economists therefore make extensive use of insights and theories of adjacent disciplines like psychology, sociology and political science. However, it is a typical economic science by the choice of topics and the way data are analysed and models are developed.

4.3 ORGANISATION

Research in Behavioural Economics has a strong empirical foundation; data are gathered in laboratory or field experiments. The department already had a standing tradition in laboratory experiments (CREED was founded in 1991) and in recent years researchers from different fields in our department (e.g. industrial organisation, labour economics, non-linear dynamic systems, personnel economics, law and economics, finance) have found their way to the laboratory. Nevertheless, to start with experimental research is not that easy. One needs to acquire practical knowledge and abilities, and one needs funds (e.g. to pay participants of experiments). The Research Priority Area Behavioural Economics helps by providing funds and dissemination of knowledge. In internal seminars researchers comment on each other's plans (compulsory for funding), a workshop is organised annually and international visits from or to co-authors are financed.

In 2010, the committee dealing with the allocation of resources, consisting of Theo Offerman, Erik Plug, Adriaan Soetevent, Joep Sonnemans and Jan Tuinstra, assessed about 17 applications for funding. Funded were 15 laboratory experiments, one field experiment and the workshop ABEE10.

In 2010, a brand new laboratory was opened in the G-building of the Roeterseiland complex, home to the Behavioural Economics group, with financial help from the Research Priority Area that covered the settling-in expenses and the expenses for new computers and laptops. The new venue consists of two labs, which makes it possible to run two separate experiments simultaneously. The small lab consists of 24 laptops and the large lab of 36 desktops. The laptops of the small lab also serve as mobile lab.

Of course, after an experiment has been run it still takes considerable time before a paper is published. Nevertheless, the Research Priority Area Behavioural Economics already has produced quite a few top publications, amongst which in the *American Economic Review* (Abbink, et al, 2010; Kuhn et al, 2011), *Nature* (van Veelen et al., 2010), *Science* (Ule et al., 2009) and the *Review of Economic Studies* (Offerman et al, 2009). A field experiment was planned (and run) in February 2010.

The workshop ABEE10 was organised by Erik Plug and Adriaan Soetevent. In 2010, the common theme of ABEE was field experiments. Some presentations were held by international top researchers (Iwan Barankay, Erwin Bulte, Frederik Carlsson, Uri Gneezy, Lorenz Goette, Dean Karlan, Andreas Lange and David Reiley) and the others by Amsterdam-based researchers. In this way a very fruitful exchange of ideas was established. For 2011 another workshop is planned in which Behavioural Theory will be on the programme.

Box III: Research Highlight: Adriaan Soetevent (Industrial Organisation, Competition Policies & Regulation)

“Down and out in Amstelveen: a field experiment on charitable giving”

February 2nd, 2010. Sander Onderstal, Arthur Schram and I had come together in the student pub on campus Uilenstede in Amstelveen. This evening, students would solicit contributions for charity in a door-to-door fundraising field experiment. The student pub acted as the central meeting point where students received and returned the necessary equipment (collection boxes, registration forms, etc.)

With this field experiment we aimed to compare in a real-life setting the performance of three different fundraising mechanisms: the Voluntary Contribution Mechanism (VCM), a lottery and a particular auction format: the all-pay auction. The VCM is the mechanism commonly used by Dutch charities. In the VCM, people just make their donation by dropping money into the collection box. In the lottery (LOT), we incentivized households to donate by awarding a prize to one out of every 300 households in the sample. The probability that a particular household would win was proportional to that household’s contribution. In the all-pay auction (APA), again one out of every 300 households in the sample received a prize. In the APA, however, the prize was awarded to the household that donated most. Theoretical results and laboratory experiments indicate that APA outperforms LOT in raising contributions for charity and that both mechanisms do better than the VCM.



This experimental fund-raising drive in Amstelveen, one of the first field experiments to receive financial support from the Research Priority Area Behavioural Economics, was preceded by one year of careful planning. First, we established contact with the Dutch Brain Research Foundation, a charity that co-finances research on brain related diseases and increases societal awareness of these diseases. The Dutch Brain Fund received the gross revenues raised. Together with the charity, we decided on the appropriate prize (a Nintendo DS game console with brain training software) and selected representative ‘neighborhoods’ in Amstelveen. Next, we meticulously allocated routes to treatments. We virtually walked each of these routes using Google Street View to distinguish between types of houses to ensure that treatments are comparable in terms of household characteristics. At the same time, we recruited students from the CREED subject pool. We organised a training session for these students in which they received instructions on how to act as a solicitor on behalf of the Brain Fund. Moreover, they had to practice approaching people to solicit donations. For this, they used a script while facing a professional actor playing the role of respondent.

The results? The students returned soaked through because of the rain but fortunately, their notes were still readable. Surprisingly, the VCM mechanism did best. This is remarkable not only because available theories and laboratory results suggest otherwise, but also because this mechanism is the one used most by fundraisers in the field.

References:

Onderstal, S. and A. J. H. C. Schram and A. R. Soetevent (2011), “*Bidding to give in the Field: Door-to-Door Fundraisers had it right from the Start,*” Tinbergen Institute Discussion Paper TI 2011-070/1.

B

THE RESEARCH PROGRAMMES

CHAPTER 5: UvA-ECONOMETRICS

Programme director: Prof. dr J.F. Kiviet
Department: Quantitative Economics (KE)
METIS-code: uva/fee/res/eem/prog
JEL-classification: C1, C2, C3, C4, C5
Web-addresses: www.ase.uva.nl/ke/UvA-Econometrics
www.feb.uva.nl/ke/UvA-Econometrics
Starting Date: 1997
VSNU-scores 2001-2007: *Quality:* 4, *Productivity:* 4, *Relevance:* 3.5,
Viability: 3.5

5.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Ariza Rojas, C.	msc	Ph.D.	0,60	0,50	-	-	KE	1
Ariza Rojas, C.	msc	oz	-	0,10	0,50	-	KE	1
Bethlehem, J.G	prof dr	hgl	0,11	0,11	0,11	0,11	KE	1
Boswijk, H.P	prof dr	hgl	0,10	0,10	0,10	0,10	KE	3
Boswijk, H.P	prof dr	hgl	0,50	0,50	0,50	0,50	KE	1
Broda, S.A.	dr	ud	-	-	0,17	0,50	KE	1
Bun, M.	dr	ud	0,50	0,50	0,50	-	KE	1
Bun, M.	dr	uhd	-	-	-	0,50	KE	1
Cheng, Y.	msc	Ph.D.	0,10	-	-	-	KE	1
Cramer, J.S.	prof dr	hgl	0,00	0,00	0,00	0,00	KE	1
Gao, Z.	msc	Ph.D.	0,60	0,60	0,60	0,40	KE	1
Garderen, K.J. van	dr	uhd	0,50	0,50	0,50	0,50	KE	1
Giersbergen, N.P.A. van	dr	ud	0,42	0,42	0,42	0,42	KE	1
Gooijer, J.G. de	prof dr	hgl	0,50	0,50	0,50	0,50	KE	1
Kiviet, J.F.	prof dr	hgl	0,50	0,50	0,50	0,50	KE	1
Kleibergen, F.R.	dr	uhd	0,00	0,00	0,00	-	KE	1
Kleibergen, F.R.	prof dr	hgl	-	-	-	0,00	KE	1
Klein, A.A.B.	dr	ud	0,50	0,50	0,50	0,50	KE	1
Niemczyk, J.	msc	Ph.D.	0,50	-	-	-	KE	1
Oomen, R.C.A.	dr	guest	0,00	0,00	0,00	0,00	KE	1
Ophem, J.C.M. van	dr	uhd	0,00	0,20	0,50	0,50	KE	1
Parente, P.	dr	postdoc	0,80	0,40	-	-	KE	1
Stakenas, P.	msc	Ph.D.	0,20	0,60	0,60	0,40	KE	1
Wansbeek, T.J.	prof dr	hgl	0,01	0,01	0,01	-	MH	1
Zu, Y.	msc	Ph.D.	0,60	0,60	0,60	0,40	KE	1
Total 1st flow of funds			6,94	6,54	6,51	5,73		
Total 2nd flow of funds			0,00	0,00	0,00	0,00		
Total 3rd flow of funds			0,10	0,10	0,10	0,10		
Total 1st f.o.f. excl. Ph.D.'s			4,34	4,24	4,71	5,73		
Total 1st-3rd flow of funds			7,04	6,64	6,61	5,83		
Ph.D. students			2,60	2,30	1,80	0,00		

5.2 PROGRAMME DESIGN

Objectives

Assessment and enhancement of the accuracy, efficiency and robustness of econometric inference obtained from finite sets of empirical data by models which may be dynamic, non-linear, not fully parametric, and nonetheless misspecified. Separate attention is being paid to cases where the data are discrete or truncated, stationary or nonstationary, trended and/or seasonal, and where they pertain to a cross-section, a set of discrete time-series, or a panel.

Motivation

Empirical economic data are usually not obtained from markets or agents in static equilibrium, but they give a random and disturbed indication at a certain moment in time, or over a relatively short period, of dynamic jointly dependent adjustment processes. Also they usually concern just a few aspects of the underlying mostly very complex linear or non-linear economic system, and sample sizes are often rather small. The various projects united in this programme all try to gear statistical techniques to the typical characteristics of particular relevant empirical economic relationships and corresponding observed data in the interest of accurate and efficient inference. The goal is to obtain a proper interpretation of the essentials of the analysed phenomena in order to test economic theory, to support decision making and for forecasting purposes.

Techniques

Both analytic and experimental methods are used in this programme to improve understanding of the available econometric or statistical inference techniques, and to develop and test alternatives. The analytic aspects often involve the derivation (possibly using computer algebra systems) of asymptotic distributions, the approximation of finite sample moments or distribution functions, the elimination of nuisance parameters etc. In computer simulations of completely specified systems the existing standard procedures and the newly developed techniques are then compared and evaluated experimentally. Occasionally the alternative techniques as such are of an experimental nature, because they involve computer-intensive methods (bootstrap resampling, randomization techniques, simulation-based inference). Actual data often serve to illustrate the empirical relevance and practical usefulness of the theoretical findings, but at times empirical issues are the prime motivation of the research projects engaged in.

Applications

The fundamental problems of econometrics indicated above are studied in an interplay with actual applied econometric research. These applications come from both macro and micro economics or business and finance. Aggregate demand (the consumption function) but also demand systems, monetary relationships (demand for money, interest rates) but also data from health economics, marketing activities and financial markets (stock returns, credit risk) are studied or provide prototypical examples for exercises in econometric theory on modelling and analysing dynamic relationships, focusing on various aspects such as dynamic or functional misspecification, order of integration, cointegration, exogeneity, seasonality, structural change in parameter values, stochastic volatility, approximation errors in inference due to finite sample sizes, etc. The economic behaviour of individual agents is analysed on the basis of cross-section data (wage determination, job mobility and allocation), duration data (on unemployment) and panel, longitudinal or spatial data (budget survey analysis, analysis of treatment effect such as training).

Subprogrammes, themes

The programme is not a collection of separate clearly demarcated sub-programmes, though within the general theme described above, the following five intertwined sub-themes can be distinguished:

accurate inference in finite samples. Within this sub-theme, analytical finite sample approximations, Bayesian inference, simulation-based inference, inference based on GMM with weak instruments, conditional inference, and methods from differential geometry are studied for (and applied in) models that may be dynamic, simultaneous, non-linear or non-standard in another way.

analysis of non-stationary data. This leads to the analysis of unit roots, cointegration and error correction models, the role of (weak) exogeneity in such models, the development of robust two-step procedures, the analysis of non-stationary seasonal and periodic models, and non-stationary models for processes in finance and marketing.

model selection and model comparison. Within this theme, both linear and non-linear models are considered, nested or non-nested, often with an emphasis on time series. Relevant topics are information criteria and entropy measures, the Fisher information matrix, model inference, and space-time modelling of socio-economic data.

econometrics of financial markets. Topics are ARCH and stochastic volatility models, the econometrics of the CAPM and factor models, econometric analysis of credit risk, the analysis of option data and implied volatilities, and the analysis of high-frequency data and realized volatility.

In addition there are various miscellanea, including work on poverty measures, on discrete data, on latent variables, on non-response, and on historical aspects of statistics and econometrics.

econometrics of endogenous interventions. An econometric analysis often entails a quantitative assessment of the effectiveness of a policy intervention. Outside controlled experiments policies are usually endogenous. Unbiased assessment of effectiveness requires adequate modelling of the causality, handling of any unobserved heterogeneity and understanding of the identification issues, by correct classification of variables as endogenous or not, and as explanatory or not, and for the latter (when exogenous) whether they establish strong or weak instruments.

The major research themes by individual are as follows:

Jelke Bethlehem's major research is on the quality of data collected by means of surveys, in particular web-surveys, with special emphasis on non-response adjustment techniques and development of new methods to reduce the bias of estimates due to under-coverage and self-selection of respondents.

Peter Boswijk's research is in the econometric analysis of financial time series, in particular investigating efficient inference procedures for unit roots and cointegration and the effects of volatility clustering and heavy tails in financial data. He also works on nonparametric volatility estimation, and on multivariate GARCH modelling.

Simon Broda's research is focussed on finite sample distribution theory and the application of uniform asymptotic expansions to econometric problems. Applications include problems in risk management, in particular VaR and Expected Shortfall, and statistical testing in panels.

Maurice Bun runs research projects that mainly entail causal inference with longitudinal or panel data used for policy intervention analysis or programme evaluation. Main aim is to develop accurate IV and GMM statistical inference methods for panel data regression models allowing for (1) endogenous policy interventions; (2) dynamic adjustment processes; (3) extensive modeling of unobserved heterogeneity; (4) heterogeneous causal effects. Main focus is on IV/GMM methods robust for number and weakness of instruments and testing procedures for detecting weak instruments. These methods are used to measure the impact of a wide variety of policy interventions (economics of crime, education and international economics).

Kees Jan van Garderen studies the effects of curvature and small samples on estimation and inference in econometric models, requiring investigation of conditional inference using differential geometry and higher order approximation techniques such as Edgeworth and Saddlepoint expansions. His further research topics include the improvement of inference for income inequality measures, aggregation and forecasting in nonstationary and nonlinear

models, and the effects of weak instruments.

Noud van Giersbergen examines methods to improve finite-sample inference in dynamic regression models. These methods can range from computer intensive techniques, such as bootstrap or other resampling methods, to analytical methods, such as bias correction and Bartlett corrections. Regarding empirical research he takes a special interest in analyzing the valuation of IPO (Initial Public Offerings) data.

Jan de Gooijer works on non-linear time-series analysis and forecasting techniques. Recently he developed a general test statistic for detecting change-points in multidimensional stochastic processes with unknown parameters, and he studied a class of regression models in which the mean function is specified parametrically, as in the existing regression methods, but the residual distribution is modeled non-parametrically by a kernel estimator without imposing any assumption on its distribution.

Jan Kiviet's current research is focused on four themes, viz. characterizing the salient features of the limiting and finite sample distributions of estimators that exploit possibly invalid and weak instruments; analyzing the joint effects of weighting matrices and instrument weakness in GMM estimators for dynamic panel data models; establishing an impartial methodology for comparing alternative inference techniques by Monte Carlo simulation; accurate analysis of the impact of endogenous policy interventions with applications in health and development.

Frank Kleibergen's research is focused on the development of classical and Bayesian inferential procedures that are reliable in small samples for generalized method of moments, linear instrumental variables regression and linear risk factor models.

Andre Klein works on problems in matrix theory applied to stationary time-series processes. Structures of Fisher information matrices of scalar and multiple stationary processes are analysed and connected to the Bezoutian, Sylvester and Vandermonde matrices as well as to the solution of the Stein equation. Also computational methods are developed for calculating the entries of Fisher information matrices for such processes.

Hans van Ophem's research is on the development and application of microeconomic estimation techniques for labour market and health economics issues. His work focuses on the investigation of selectivity models in non-linear econometrics.

The Ph.D. candidates work on the following projects:

Cesar Ariza Rojas (supervised by Kees Jan van Garderen) studies the class of models belonging to the curved exponential family, in which the dimension of the minimal sufficient statistics is larger than the number of parameters to be estimated. Given the appropriate exact or almost exact ancillary statistic the conditional density of a parameter of interest can be computed or approximated and the consequences of conditioning for inference investigated.

Zhengyuan Gao (supervised by Kees Jan van Garderen) works on modified estimation approaches within the class of semiparametric likelihood methods and applies the estimation method to microeconometrics. The asymptotic properties and computation algorithms of relevant estimators and tests will be explored. Since the fall he uses an NOW-Rubicon fellowship to spend two years at Yale University (USA) investigating what happens when economic policy makers explicitly take into account the fact that the model used for making the decision is not completely correct.

Paulius Stakenas (supervised by Peter Boswijk) works on econometric methods for long-memory and fractional cointegration in financial time series, with particular emphasis on fractional cointegration testing in Gaussian vector autoregressive models, and on the relation between long memory and structural change, applied to interest rate modelling.

Yang Zu (supervised by Peter Boswijk) examines the time-varying properties of financial volatility and correlation, with particular emphasis on non-parametric filtering of continuous-time volatility processes from high-frequency data with market micro-structure noise. In addition, he studies the effect of nonstationary volatility and correlation on cointegration testing.

5.3 PROGRAMME EVALUATION

The size of UvA-Econometrics has just the minimal critical mass required to maintain a stimulating research environment. Almost weekly a Friday afternoon (mostly external but occasionally internal) seminar is organised at (and funded by) the Tinbergen Institute jointly with econometricians from VU University Amsterdam. In addition to frequently an internal informal workshop is held on Thursdays at lunch time. In the latter research projects which are still in an early stage are being discussed. These meetings stimulate the coherence of the research programme and should lead to more joint research projects. All activities and achievements of UvA-Econometrics are communicated via its web-site www.fee.uva.nl/ke/UvA-Econometrics from which UvA-Econometrics discussion papers (with corporate identity cover page) can be downloaded.

It is the ambition of UvA-Econometrics to find further international recognition as one of the major strongholds in theoretical econometrics worldwide. The activities and achievements over the last decade (number and quality of publications, presentations at and invitations for international meetings, responsibilities regarding journals and conferences, hosting of visiting scholars, exposure at peer institutions, etc.) have been substantial, but leave ample room for further qualitative and quantitative improvements. In July 2010 UvA-Econometrics organised (like in 1996) the International Conference on the Econometric Analysis of Panel Data, which proved to be highly successful. Most individual members of UvA-Econometrics continue to operate in intensive formal and informal national and international networks. However, the recently implemented substantial increases in teaching loads will undoubtedly have negative effects on the research achievements over the coming years.

Since seven years policy within FEB-UvA and the Tinbergen Institute obstructed structural inflow via the first stream of money of qualified Ph.D. candidates that obtained an MSc in econometrics or quantitative economics from UvA, or from other Dutch or foreign universities. Due to the occasional circumstance that in the period 2004-2007 the Tinbergen Institute's M.Phil. programme (which presently has no genuine focus on econometric theory) generated too few able Ph.D. candidates we were allowed (but usually at a very late stage, just before September) to fill open places with candidates which received a master from UvA, Brussels, Manchester, Southampton and Tilburg respectively. There they received a training in quantitative economics and econometrics that suits their specific needs better than (especially the first year of) the current TI M.Phil. does. Over the last few years this option to hire "external" Ph.D. candidates expired. Although it has been announced already a few years back that a special TI track will be launched for Ph.D. candidates that finished an MSc in econometrics or equivalent, this has not yet been materialized. In combination with the current financial hardship at FEB-UvA the prospects for hiring new Ph.D. candidates financed by the first flow of money are rather grim.

The above explains why it has been almost impossible over the last five years for students from our own MSc programme to start as a Ph.D. student in econometrics. It also provides one of the motivations for some of our best BSc students to not enter our MSc but leave UvA and pursue their studies abroad. Nevertheless, our MSc programme prepares for a career as a researcher, although only few of our MSc students actually show both ambition (and talent) to embark on academic research in a Ph.D. project. However, both in the 3rd year of the BSc in Econometrics and Operations Research and in the one year programme of the MSc Econometrics, a substantial number of students is enthusiastic about their field and its research opportunities as can be seen for instance from the quality of the student journal AENORM and the various activities (excursions, conferences) that they organise, and most notably from the annual international student competition Econometric Game, which is unique and receives worldwide recognition.

It is very good news that again a prestigious NWO-funded project (Bun-Vidi) plus an OiO will be part of UvA-Econometrics. Over a range of years we experienced difficulties to raise money for externally funded projects. One of the main reasons for this might be that the outside world (especially within the Netherlands as it seems) is no longer convinced that econometric theory and its applications, although by nature multi-disciplinary and a fundamental and often indispensable tool in economics, qualifies as innovative, promising and fashionable. Perhaps the group and its individual members should consider seriously whether in the years to come the main emphasis of the research themes (which is theory) should be redirected, putting more emphasis on applications, and whether cooperation with applied researchers should be intensified.

Together with six European partners led by the Université Paris 1 Panthéon-Sorbonne, an Erasmus Mundus project proposal has been drawn up for a joint doctorate in economics: the European Doctorate in Economics (EDEEM), and it was selected by the European Union as part of the "2010 Erasmus Mundus Action 1 Call for proposals (EACEA/29/09)". The proposal calls for 25 Ph.D. positions each year for an initial period of five years, where the EU will finance 50 doctoral positions (10 per year). Through matching, a further 15 positions will be placed with EDEEM. There are seven European partners participating in EDEEM along with 18 associated partners worldwide. EDEEM is a programme for students of quantitative economics who will conduct their doctoral research at (at least) two universities in different countries. One of the conditions of the programme is that doctoral candidates are required to do their research for at least two semesters at a partner university, with supervision by researchers from the partner university who have common research interests.

Since last year, every year in January, after the annual report has been prepared, there will be a meeting at which the individual research plans of all UvA-Econometrics members with more than 0.2 fte for research will be discussed jointly. For that meeting they prepare a short overview listing current and planned research projects and papers, and any suggestions with respect to relevant more general issues and activities regarding research. This explicit planning and internal discussion should stimulate both overall and individual quality, productivity, relevance and viability of the research efforts.

The above evaluation can be summarized in the following SWOT analysis regarding the activities and current position of UvA-Econometrics:

Strengths: good reputation; a relatively steady stream of A and B publications; quality of human capital; expertise in a broad range of cutting edge areas of econometric (and statistical) theory; recently improved prospects regarding external finance; coherence of and atmosphere within the group; active seminar and workshop series; exposure via own discussion paper series; tight but appropriate facilities regarding computing and travel.

Weaknesses: increased teaching loads; relatively few links with practitioners and with other units of FEB outside the QE department; obstructed and rather ad-hoc entry into Ph.D. programme.

Opportunities: development of an M.Phil. in econometrics within the Tinbergen Institute being a one year graduate programme for students with an MSc in Econometrics (or equivalent); developing a more applied profile within ASE and with the ABS; improving the research content of our BSc and MSc programmes and stimulating an increased inflow from talented foreign students.

Threats: over the next few years substantial research input will reach retirement age and there are no guarantees regarding replacement; research input by senior staff may slip towards less than 40% of their total labour input; a less favourable balance than 50/50 between A and B publications (by core members); too few of our current MSc Econometrics students show ambitions towards the Ph.D. programme.

5.4 RESOURCES AND FUNDING

An NWO-VIDI grant (7.5k Euro) awarded to Maurice Bun will enable him and an extra Ph.D. student to work for the next five years on a project titled: “Causal inference with panel data”. An open-competition NWO grant for a Ph.D. student was awarded to Jan Kiviet. This ends a period of four years during which no second flow of funds money had been acquired. The current facilities allow the active researchers (and also first and second year Ph.D. students) to attend at least one international conference per year.

5.5 OUTPUT

Key publications

- Bethlehem, J.G. (2009). *Applied Survey Methods – A Statistical Perspective*. John Wiley & Sons, Hoboken, NJ, USA. [A]
- Boswijk, H.P. (2010). Mixed normal inference on multicointegration. *Econometric Theory*, 26, 1565-1576. [A]
- Bun, M.J.G., Kiviet, J.F. (2006). The Effects of Dynamic Feedbacks on LS and MM Estimator Accuracy in Panel Data Models. *Journal of Econometrics*, 132, 409-444. [A].
- Giersbergen, N.P.A. van (2009). Bartlett correction in the stable AR(1) model with intercept and trend. *Econometric Theory*, 25, 857-872. [A]
- Kleibergen, F., Mavroudis, S. (2009). Weak instrument robust tests in GMM and the new Keynesian Phillips curve. *Journal of Business and Economic Statistics*, 27, 293-311. [A]
- Klein, A., Spreij, P. (2009). Matrix differential calculus applied to multiple stationary time series and an extended Whittle formula for information matrices. *Linear Algebra and its Applications*, 430, 674-691. [A].
- Schluter, C., van Garderen, K.J. (2009). Edgeworth expansions and normalizing transforms for inequality measures. *Journal of Econometrics*, 150, 16-29. [A]

Forthcoming

- Bethlehem, J.G., Cobben, F., Schouten, B. (2011). *Handbook on Nonresponse in Household Surveys*. John Wiley & Sons, Hoboken, NJ, USA. [A]
- Boswijk, H.P., van der Weide, R. (2011). Method of moments estimation of GO-GARCH models. *Journal of Econometrics*. [A]
- Boswijk, H.P., Griffioen, G.A.W., Hommes, C.H. (2011). Success and failure of technical trading strategies in the cocoa futures market. Kyrtsou, C., *Progress in Financial Markets Research*. New York: Nova Publishers. [C]
- Broda, S.A. (2011). The Expected Shortfall of Quadratic Portfolios with Heavy-Tailed Risk Factors. *Mathematical Finance*. [A]
- Gooijer, J.G. de, Cheng, Y., Zerom, D. (2011). Efficient estimation of an additive quantile regression model. *Scandinavian Journal of Statistics*. [B]
- Gooijer, J.G. de, Yuan, A. (2011). Some exact tests for manifest properties of latent trait models. *Computational Statistics & Data Analysis*. [B]
- Gooijer, J.G. de, Yuan, A. (2011). Kernel-smoothed conditional quantiles of correlated bivariate discrete data. *Statistica Sinica*. [B]
- Hautsch, N., L. M. Kyj, and R.C.A. Oomen (2011). A blocking and regularization approach to high dimensional realized covariance estimation. *Journal of Applied Econometrics*. [B]
- Kiviet, J.F., Phillips, G.D.A. (2011). Higher-order asymptotic expansions of the least-squares estimation bias in first-order dynamic regression models. *Journal of Computational Statistics & Data Analysis*. [B]

Kiviet, J.F., Niemczyk, J. (2011). Comparing the asymptotic and empirical (un)conditional distributions of OLS and IV in a linear static simultaneous equation. *Journal of Computational Statistics & Data Analysis*. [B]

Scherpenzeel, A.C., Bethlehem, J.G. (2011). How representative are online panels? Problems of coverage and selection and possible solutions. In: Das, M., Ester, P. & Kaczmirek, L. (eds.), *Social and Behavioural Research and the Internet*, Routledge, New York-London, pp. 105-132. [A]

Publications in numbers

<i>UvA-Econometrics</i>				<i>2010</i>
1) Academic publications	a)in refereed journals	A	6	
		B	5	
		Other	4	15
	b) in other journals		1	1
	c) book chapters	A	0	
		B	2	
		Other	0	2
	d) in proceedings		0	0
Total				18
2) Books			0	0
3) Ph.D. theses			0	0
4) Professional publications			0	0
5) Popular publications			0	0
6) Working papers			13	13
Total				31

Academic publications (excluding publications in/of books) – refereed

A

Boswijk, H.P. (2010). Mixed normal inference on multicointegration. *Econometric Theory*, 26(5), 1565-1576.

Boswijk, H.P., Franses, P.H., Dijk, D. van (2010). Twenty years of cointegration. *Journal of Econometrics*, 158(1), 1-2.

Boswijk, H.P., Franses, P.H., Dijk, D. van (2010). Cointegration in a historical perspective. *Journal of Econometrics*, 158(1), 156-159.

Christensen, K., R.C.A. Oomen, and M. Podolskij (2010). Realised quantile-based estimation of the integrated variance. *Journal of Econometrics*, 159, 74-98.

Griffin, J.E., Oomen, R.C.A. (2010). Covariance measurement in the presence of non-synchronous trading and market microstructure noise. *Journal of Econometrics*, 160(1), 58-68.

Klein, A., Spreij, P. (2010). Tensor Sylvester matrices and the Fisher information matrix of VARMAX processes. *Linear Algebra and its Applications*, 432(8), 1975-1989.

B

Boswijk, H.P. (2010). Nuisance parameter free inference on cointegration parameters in the presence of variance shifts. *Economics Letters*, 107(2), 190-193.

Bun, M.J.G., Windmeijer, F. (2010). The weak instrument problem of the systemGMM estimator in dynamic panel data models. *The Econometrics Journal*, 13(1), 95-126.

Franses, P.H., Cramer, J.S. (2010). On the number of categories in an ordered regression model. *Statistica Neerlandica*, 64 (1), 125-128.

Gatheral, J., Oomen, R.C.A. (2010). Zero-intelligence realized variance estimation. *Finance and Stochastics*, 14(2), 249-283.

Oomen, R.C.A. (2010). High dimensional covariance forecasting for short intra-day horizons. *Quantitative Finance*, 10(10), 1173-1185.

Other

- Basu, D., R.C.A. Oomen, and A. Stremme (2010). International dynamic asset allocation and return predictability. *Journal of Business Finance and Accounting*, 37(7-8), 1008-1025.
- Basu, D., R.C.A. Oomen, and A. Stremme (2010). How to time the commodities markets. *Journal of Derivatives & Hedge Funds*, 16(1), 1-8 (invited editorial).
- Bethlehem, J.G. (2010). Selection bias in web surveys. *International Statistical Review*, 78(2), 161-188.
- Cramer, J.S., Lumey, L.H. (2010). Maternal preconception diet and the sex ratio. *Human Biology*, 82 (1), 103-107.

Academic publications (in/of books) – refereed

B

- Broda, S.A., Paoletta, M.S. (2010). Saddlepoint Approximations: A Review and Some New Applications. In: Gentle, J. E., Härdle, W.K., Mori, Y. (eds.), *Handbook of Computational Statistics*, 2nd edition, Springer Verlag, Berlin.
- Cramer, J.S. (2010). The logistic growth curve. In: *Famous Figures and Diagrams in Economics* (Eds. M. Blaug, P. Loydd). Edward Elgar Publishing.

Academic publications (excluding publications in/of books) – non-refereed

- Broda, S.A., Natora, M, Franke, F., Obermayer, K. (2010). Optimal steering vector adaptation for linear filters leading to robust beamforming. Proceedings of the 4th International Symposium on Communications, Control and Signal Processing.

Academic publications (working- and discussion papers)

- Bethlehem, J.G. (2010). New developments in survey data collection methodology for official statistics. Discussion Paper 10010. *Statistics Netherlands*, The Hague/ Heerlen.
- Broda, S.A., 2010. Testing for sphericity in panels. *UvA-Econometrics Working Paper*, 2010/09.
- Broda, S.A., Paoletta, M.S., 2010. Saddlepoint approximation of expected shortfall for transformed means. *UvA-Econometrics Working Paper*, 2010/08
- Bun, M., Windmeijer, F., 2010. A comparison of bias approximations for the 2SLS estimator. *UvA-Econometrics Working Paper*, 2010/03.
- Bun, M., Haan, M.de, 2010. Weak instruments and the first stage F-statistic in IV models with a nonscalar error covariance structure. *UvA-Econometrics Working Paper*, 2010/02.
- Cheng, Y., Gooijer, J.G. de, Zerom, D., 2010. Efficient estimation of an additive quantile regression model. *UvA-Econometrics Working Paper*, 2010/05.
- Cramer, J.S., 2010. The Brabant data base. *UvA-Econometrics Working Paper*, 2010/04.
- Gooijer, J.G. de, Yuan, A. (2010). Some exact tests for manifest properties of latent trait models. *Tinbergen Institute Discussion Paper*, 2010-044/4.
- Joustra, P., Meester, R., Ophem, H. van, 2010. Can statisticians beat surgeons at the planning of operations? *UvA-Econometrics Working Paper*, 2010/06.
- Kiviet, J.F., Niemczyk, J. (2010). Comparing the asymptotic and empirical (un)conditional distributions of OLS and IV in a linear static simultaneous equation. *UvA-Econometrics Working Paper*, 2010/01.
- Mazza, J., Ophem, H. van (2010). Separating risk in education from heterogeneity: a semiparametric approach. *UvA-Econometrics Working Paper*, 2010/07.
- Stakénas, P. (2010). Dynamic OLS estimation of fractionally cointegrated regressions. *UvA-Econometrics Working Paper*, 2010/11.

Thiel, J.H., Giersbergen, N.P.A. van (2010). The effect of European integration on exchange rate dependence: the Polish accession to the EU. *UvA-Econometrics Working Paper*, 2010/10.

Contributions to academic conferences, workshops and seminars

- Bethlehem, J.G. (2010, Oktober), Statistics without Surveys? About the Past, Present and Future of Data Collection in The Netherlands. Keynote speech, International Methodology Symposium of Statistics Canada, Ottawa.
- Bethlehem, J.G. (2010, Oktober), Statistics without Surveys? About the Past, Present and Future of Data Collection in The Netherlands. Invited Presentation, Workshop about the Future of Federal Household Surveys, Washington. Organised by the National Academies.
- Boswijk, H.P. (2010, 8 February). Unit root and cointegration analysis with time-varying volatility. Tinbergen Institute M.Phil. Seminar, Amsterdam.
- Boswijk, H.P. (2010, 21 June). Likelihood-based inference in dynamic panel models. 5th ETSEER Meeting, University of Pamplona, Spain.
- Boswijk, H.P. (2010, 21 August). Mixed normal inference on multicointegration. Econometric Society World Congress, Shanghai.
- Boswijk, H.P. (2010, 15 October). Mixed normal inference on multicointegration. Nuffield College Research Seminar, Oxford, UK.
- Boswijk, H.P. (2010, 21 October). Likelihood-based inference in dynamic panel models. UvA-Econometrics workshop, Amsterdam.
- Boswijk, H.P. (2010, 4 November). Inference on cointegration parameters in the presence of nonstationary volatility. Seminar, European University Institute, Florence, Italy.
- Boswijk, H.P. (2010, 18 November). Likelihood-based inference in dynamic panel models. Tinbergen Institute M.Phil. Seminar, Amsterdam.
- Boswijk, H.P. (2010, 4 December). Inference on parameters in cointegrated vector autoregressive models with nonstationary volatility. 4th CSDA International Conference on Computational and Financial Econometrics (CFE'10), London, UK.
- Broda, S. A. (2010, July 2). Testing for sphericity in panels. Presented at 16th International Panel Data Conference, Amsterdam, The Netherlands.
- Broda, S. A. (2010, December 16). Tail probabilities and partial moments for a linear plus a quadratic form in a multivariate generalized hyperbolic random vector, with applications to risk management and the 2SLS estimator of a structural parameter. UvA-Econometrics workshop, University of Amsterdam.
- Bun, M.J.G. (2010, 14 January). Weak instruments and the first stage F-statistic in IV models with a nonscalar error covariance structure. UvA-Econometrics workshop, University of Amsterdam.
- Bun, M.J.G. (2010, 8 February). The Weak Instrument Problem of the System GMM Estimator in Dynamic Panel Data Models. Tinbergen Institute Research Seminar.
- Bun, M.J.G. (2010, 9 April). GMM based inference in panel data models. 2nd Amsterdam-Bonn Workshop in Econometrics, Tinbergen Institute, Amsterdam.
- Bun, M.J.G. (2010, 19 April). Weak instruments and the first stage F-statistic in IV models with a nonscalar error covariance structure. KAFEE seminar, University of Amsterdam.
- Bun, M.J.G. (2010, 4 July). GMM based inference in panel data models. 16th International Conference on Panel Data, University of Amsterdam.
- Bun, M.J.G. (2010, 17 August). Weak instruments and the first stage F-statistic in IV models with a nonscalar error covariance structure. Econometric Society World Congress 2010, Shanghai Jiao Tong University, Shanghai.
- Cramer, J.S. (2010, 10 June). Early determinants of adult mortality. UvA-Econometrics workshop, University of Amsterdam.

- Gao, Z. (2010, August). Semi-parametric likelihood inference for worst case dynamic discrete games. Presented at the Econometric Society 10th World Congress, Shanghai, China.
- Garderen, K.J. van (2010, 1 April). Conditional bimodality and saddlepoint approximations in a structural equations model. UvA-Econometrics Workshop, Amsterdam.
- Garderen, K.J. van (2010, 27 May). Conditioning in econom(etr)ics. Tinbergen Institute M.Phil. Seminar, Amsterdam.
- Giersbergen, N. (2010, 25 March). Look who is talking now; Analyst recommendations and internet IPOs. UvA-Econometrics workshop, Amsterdam.
- Gooijer, J.G. de (2010, 15 April). Kernel-smoothed conditional quantiles of correlated bivariate discrete data. UvA-Econometrics Workshop, Amsterdam.
- Gooijer, J.G. de (2010, 11 August). Efficient estimation of an additive quantile regression model. 73rd Annual Meeting of the Institute of Mathematical Statistics, Gothenburg, Sweden.
- Kiviet, J.F. (2010, 28 January). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. UvA-Econometrics workshop, Amsterdam.
- Kiviet, J.F. (2010, 12 February). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at University of Montreal, Canada.
- Kiviet, J.F. (2010, 17 February). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Yale University, New Haven, USA.
- Kiviet, J.F. (2010, 22 February). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Brown University, Providence, USA.
- Kiviet, J.F. (2010, 1 March). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Harvard University, Cambridge, USA.
- Kiviet, J.F. (2010, 5 March). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Syracuse University, USA.
- Kiviet, J.F. (2010, 8 March). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Carlton University, Ottawa, Canada.
- Kiviet, J.F. (2010, 10 March). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at New York University, USA.
- Kiviet, J.F. (2010, 6 April). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Penn State University, USA.
- Kiviet, J.F. (2010, 8 April). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Rutgers University, New Brunswick, USA.
- Kiviet, J.F. (2010, 9 April). Analysis of the causes of the decline in infant mortality in Brazil. Staff seminar at University of Albany, USA.
- Kiviet, J.F. (2010, 15 April). The performance of OLS and IV in simultaneous equations under alternative conditioning sets. Staff seminar at Columbia University, New York, USA.
- Kiviet, J.F. (2010, 28 May). Reliability of econometric inference from small panel data sets, illustrated by an analysis of the causes of the decline in infant mortality in Brazil. Staff seminar at University of Alicante, Spain.
- Kiviet, J.F. (2010, 20 August). Comparing the asymptotic and empirical (un)conditional distributions of OLS and IV in a linear static simultaneous equation. Presented at Econometric Society World Meeting, Shanghai (China) 17-21 August 2010.
- Kiviet, J.F. (2010, 8 November). Over het meten van het effect van endogene interventies (On the measurement of the effects of endogenous interventions). Royal Netherlands Academy of Arts and Sciences, section Behavioural and Social Sciences.

- Kiviet, J.F. (2010, 18 November). Identification and inference in a simultaneous equation under alternative information sets and sampling schemes. UvA-Econometrics workshop, Amsterdam.
- Kiviet, J.F. (2010, 11 December). Derivation and exploitation of the limiting distribution of the LSDV estimator in dynamic panel data models. Presented at the Conference on Computational and Financial Econometrics, London, 10-12 December 2010.
- Kiviet, J.F. (2010, 18 December). Identification and inference in a simultaneous equation under alternative information sets and sampling schemes. Presented at EC2 meeting, Toulouse, 17-18 December 2010.
- Kleibergen, F. (2010, May 14), Discussion of “Structural Multi-Equation Macroeconomic Models: Identification-Robust Estimation and Fit” by Jean-Marie Dufour, Lynda Khalaf and Maral Kichian. Fourth CIREQ time series conference, University of Montreal, May 13-14.
- Kleibergen, F. (2010, November 1). Identification pathologies in dynamic panel data models, University of Amsterdam, Kaffee lunch seminar
- Kleibergen, F. (2010, November 3). Statistical anomalies in “support” of asset pricing. Econometrics seminar, Tilburg University.
- Kleibergen, F. (2010, November 6). Identification-pathology robust Bayesian analysis of DSGE models. First ESOBE conference, Erasmus University Rotterdam.
- Klein, A. (2010, 21 June). On a confluent Vandermonde matrix polynomial. Presented at the 16th International Conference of the Linear Algebra Society. Pisa, Italy, June 21-25, 2010.
- Ophem J.C.M. van (2010, June 18). Starting wages respond to employer’s risk. 3rd joint EALE/SOLE conference, London, England.
- Ophem J.C.M. van (2010, February 11). The deductible in health insurance: do the insured make a choice based on the arguments as intended by the policy makers? UvA-Econometrics workshop, Amsterdam.
- Ophem J.C.M. van (2010, June 25). The deductible in health insurance: do the insured make a choice based on the arguments as intended by the policy makers? 1st IRDES Workshop on Applied Health Economics and Policy Evaluation, IRDES, Paris, France.
- Ophem J.C.M. van (2010, November 16). The deductible in health insurance: do the insured make a choice based on the arguments as intended by the policy makers? Seminar at the Erasmus Universiteit, Rotterdam, The Netherlands.
- Stakenas, P. (2010, 2 December) Estimation and inference of fractionally integrated time series via autoregressive approximation. UvA-Econometrics workshop, Amsterdam.

Organisational contributions to conferences, workshops and seminars

- Bethlehem, J.G. (2010). Organiser of the Fifth Internet Survey Methodology Workshop, to be held August 2011, The Hague, The Netherlands.
- Boswijk, H.P. (2010). Member of the programme committee of the 4th CSDA International Conference on Computational and Financial Econometrics (CFE’10), London, UK.
- Broda, S.A. (2010). Organiser of the Tinbergen Institute Econometrics Seminar series (with Michael Massmann of the VU) and of the Econometrics Workshop, UvA Econometrics.
- Bun, M.J.G. (2010). Chairman of the programme committee of the 16th International Conference on Panel Data, Amsterdam, July, 2010.
- Garderen, K.J. van (2010). Co-ordinating Committee Member of the Netherlands Econometric Study Group (NESG)
- Garderen, K.J. van (2010). Member Quantitative Economics Doctorate (QED) and Network.
- Kiviet, J.F. (2010). Member of the programme committee of the 16th International Conference on Panel Data, Amsterdam, July, 2010.

- Kiviet, J.F. (2010). Member of the programme committee of the 4th CSDA International Conference on Computational and Financial Econometrics (CFE'10), London, UK.
Ophem, H. van (2010). Organiser of the UvA-Econometrics internal workshop series.

UvA-Econometrics Seminars

- (2010, 15 January) Giuseppe Cavaliere (University of Bologna) Bootstrap determination of the cointegration rank in VAR models
(2010, 22 January) Anoop Chaturvedi (University of Allahabad) Bayesian Unit Root Test for AR Model Involving Structural Breaks with Application to ASEAN Countries Export.
(2010, 29 January) Helmut Lutkepohl (European University Institute) Generalized least squares estimation for cointegration parameters under conditional heteroskedasticity.
(2010, 5 February) Sebastien Laurent (Universiteit van Maastricht) Robust estimation of dynamic conditional correlation GARCH models
(2010, 12 February) Stephen Pollock (University of Leicester) Band-limited processes in discrete and continuous time
(2010, 19 February) Pavel Janus (Vrije Universiteit) Fractionally integrated generalized autoregressive score with some applications
(2010, 26 February) Heino Bohn Nielsen (University of Copenhagen) An I(2) cointegration model with piecewise linear trends
(2010, 12 March) Beatrice Pataracchia (Tilburg University) Spectral representation of Markov switching models
(2010, 19 March) Bernd Schwaab (Vrije Universiteit) Mixed measurement dynamic factor models with applications
(2010, 26 March) Emma Iglesias (Michigan State University) Maximum likelihood estimation of spatial probit models
(2010, 9 April) 2nd Amsterdam-Bonn Workshop in Econometrics:
Ulrich Homb (University of Bonn): Testing for speculative bubbles in stock markets: A comparison of alternative methods
Joern Tenhofen (University of Bonn): Does anticipation of government spending matter? The role of (non-)defense spending
Peter Boswijk (University of Amsterdam): Method of moments estimation of GO-GARCH models
Pawel Janus (VU University Amsterdam): Fractionally integrated generalized autoregressive score with some applications
Paulius Stakenas (University of Amsterdam): Estimation and inference of fractionally cointegrated regressions by an autoregressive approximation
Joerg Breitung (University of Bonn): Testing for serial correlation in fixed-effects panel data models
Maurice Bun (University of Amsterdam): GMM based inference for panel data models
Alexander Gleim (University of Bonn): Approximate Bayesian computation with indirect moment conditions
Peter Exterkate (Erasmus University Rotterdam): Forecasting the yield curve in a data-rich environment using the factor-augmented Nelson-Siegel model
Michel van der Wel (Erasmus University Rotterdam): Dynamic factor models with smooth loadings for analyzing the term structure of interest rates
Bernd Schwaab (VU University Amsterdam): Mixed measurement dynamic factor models
(2010, 23 April) Christian Francq (University of Lille 3) Optimal predictions of powers of conditionally heteroskedastic processes
(2010, 7 May) Michael Wolf (University of Zurich) Formalized data snooping based on generalized error rates

- (2010, 21 May) Geert Ridder (University of Southern California) The asymptotic variance of semiparametric estimators with generated regressors
- (2010, 4 June) Jacques Commandeur (Vrije Universiteit) Multivariate time series analysis of safety and risk
- (2010, 18 June) Laura Mayoral (University Pompeu Fabra) Heterogeneous dynamics, aggregation and the persistence of economic shocks
- (2010, 2,3,4-July) Panel Data Conference
- (2010, 10 September) Philipp Sibbertsen (University of Hannover) Identification problems in ESTAR models and a new model
- (2010, 17 September) Joakim Westerlund (University of Gothenburg) Testing for a Unit Root in a Random Coefficient Panel Data Model
- (2010, 21 September) Alok Bhargava (University of Houston) Executive compensation, share repurchases and investment expenditures: Econometric evidence from U.S. firms
- (2010, 8 October) Richard Paap (EUR) Real-Time Inflation Forecasting in a Changing World
- (2010, 29 October) Johannes Kristensen (University of Aarhus) Macroeconomic forecasting using robustified diffusion indexes
- (2010, 12 November) Marcel Scharth (VU) Fast unbiased and efficient importance sampling for state space models
- (2010, 19 November) Ed Vytlačil (Yale University) Generalized Roy model and the cost benefit analysis of social programmes
- (2010, 26 November) Grant Hillier (Southampton) Hypothesis testing in IV regression: Some exact answers, and some questions
- (2010, 3 December) Jean-Pierre Urbain (Universiteit Maastricht) Recent advances in panel cointegration analysis.

UvA-Econometrics Internal Workshops

- (2010, 14 January) Maurice Bun. Weak instruments and the first stage F-statistic in IV models with a nonscalar error covariance structure.
- (2010, 28 January) Jan Kiviet. The performance of OLS and IV in simultaneous equations under alternative conditioning sets.
- (2010, 11 February) Hans van Ophem. The deductible in health insurance: do the insured make a choice based on the arguments as intended by the policy makers?
- (2010, 25 March) Noud van Giersbergen. Look who is talking now; Analyst recommendations and internet IPOs.
- (2010, 1 April) Kees Jan van Garderen. Conditional bimodality and saddlepoint approximations in a structural equations model.
- (2010, 15 April) Jan de Gooijer. Kernel-smoothed conditional quantiles of correlated bivariate discrete data.
- (2010, 10 June) Mars Cramer. Early determinants of adult mortality.
- (2010, 21 October) Peter Boswijk. Likelihood-based inference in dynamic panel models.
- (2010, 18 November) Jan Kiviet. Identification and inference in a simultaneous equation under alternative information sets and sampling schemes.
- (2010, 2 December) Paulius Stakenas. Estimation and inference of fractionally integrated time series via autoregressive approximation.
- (2010, 16 December) Simon Broda. Tail probabilities and partial moments for a linear plus a quadratic form in a multivariate generalized hyperbolic random vector, with applications to risk management and the 2SLS estimator of a structural parameter.

Participation in academic networks & fellowships

- Boswijk, H.P. (2010). Fellow Tinbergen Institute.
- Boswijk, H.P. (2010). Member of the Board of the Tinbergen Institute
- Boswijk, H.P. (2010). Fellow Netherlands Network of Economics.

- Boswijk, H.P. (2010). Member of European Time-Series Econometric Research Network (ETSERN).
- Broda, S.A. (2010) Candidate Fellow Tinbergen Institute.
- Bun M.J.G. (2010). Fellow Tinbergen Institute.
- Cramer, J.S. (2010). Fellow of the Econometric Society.
- Cramer, J.S. (2010). Resting member of the Royal Netherlands Academy of Arts and Sciences
- Cramer, J.S. (2010). Honorary research fellow Tinbergen Institute.
- Garderen, K.J. van (2010). Fellow Tinbergen Institute.
- Garderen, K.J. van (2010). Member Marie Curie Fellowship Association.
- Gooijer, J.G. de (2010). Fellow Tinbergen Institute.
- Gooijer, J.G. de (2010). Fellow Netherlands Network of Economics
- Gooijer, J.G. de (2010). Honorary Fellow of the International Institute of Forecasters.
- Kiviet, J.F. (2010). Elected member of the Royal Netherlands Academy of Arts and Sciences
- Kiviet, J.F. (2010). Fellow of Journal of Econometrics.
- Kiviet, J.F. (2010). Fellow Tinbergen Institute.
- Kleibergen, F. (2010). Fellow of Journal of Econometrics.
- Kleibergen, F. (2010). Associate research fellow Tinbergen Institute.

Editor or member of editorial board

- Boswijk, H.P. (2010). Guest Editor (with D. van Dijk and P.H. Franses) *Journal of Econometrics Annals* (Vol. 158(1): special issue on Twenty Years of Cointegration).
- Gooijer, J.G. de (2010). Associate Editor *International Journal of Forecasting*.
- Gooijer, J.G. de (2010). Associate Editor *Empirical Economics*.
- Kiviet, J.F. (2010). Member of the Editorial Board *Foundations and Trends in Econometrics*.
- Kleibergen, F. (2010). Associate editor *Economics Letters*.

Referee activities

- Bethlehem, J.G. (2010). Referee for *Journal of Official Statistics, European Journal of Operations Research, Journal of American Statistical Association, International Statistical Review, Public Opinion Quarterly*.
- Boswijk, H.P. (2010). Referee for *Econometrics Journal, Econometric Theory, Scandinavian Journal of Statistics, Econometric Theory, Journal of Econometrics, Journal of Economic Dynamics and Control, Journal of Time Series Analysis, Oxford Bulletin of Economics and Statistics, Review of Economic Studies*.
- Broda, S.A. (2010). Referee for *Journal of Econometrics, Economics, International Journal of Computer Mathematics, Applied Mathematics and Computation, Mathematical Finance*.
- Bun, M.J.G. (2010). Referee for *Canadian Journal of Economics, Econometrica, Econometrics Journal, Econometric Reviews, Journal of Applied Econometrics, Journal of Econometrics, Journal of Common Market Studies, Journal of the Japan Statistical Society, Journal of the Royal Statistical Society (Series B), Pakistan Journal of Statistics, Scottish Journal of Political Economy*.
- Garderen, K.J. van (2010). Referee for *Journal of Econometrics, Journal of Forecasting*.
- Giersbergen, N.P.A. van (2010). Referee for *Econometric Theory*.
- Gooijer, J.G. de (2010). Referee for *Journal of Econometrics, International Journal of Forecasting, Empirical Economics, Statistics, Bernoulli*.
- Kiviet, J.F. (2010). Referee for *Journal of Econometrics, Journal of Computational Statistics & Data Analysis, Communications in Statistics, Econometrics Review, Journal of Applied Econometrics*.

Kleibergen, F. (2010). Referee for *Journal of Econometrics*, *Journal of Applied Econometrics*, *Econometric Theory*, *Econometrica*, *Journal of Business and Economic Statistics*, *Review of Economics and Statistics*, *Econometrics Journal*, *Economics Letters*.

Membership of academic committees (including Ph.D. committees outside the FEB)

Bethlehem, J.G. (2010). Board member of the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS).

Bethlehem, J.G. (2010). Member of the National Statistics Methodology Advisory Committee of the Office for National Statistics, London, UK.

Bethlehem, J.G. (2010). Member of the Board of Overseers of the MESS Project (Multi-disciplinary facility for measurement and Experimentation in the Social Sciences).

Boswijk, H.P. (2010, March). Member of NWO-Veni selection committee.

Kiviet, J.F. (2010, February). Member of Ph.D. committee of Fermin Doko at Université de Montréal.

Research contributions in the media

Bethlehem (2010). Methodological Adviser of the ‘EénVandaag Opiniepanel’ of the television channel Nederland 1.

Bethlehem, J.G. (2010), Wat zijn goede peilingen? Presentation at the seminar ‘Surprise or Survey’, Amsterdam. Organised by CBS, NPO & NPSO.

Bethlehem (2010). Giving a workshop on designing surveys at the Conference of the ‘Vereniging voor Onderzoeksjournalisten’, Gent, België.

Grants, prizes and honours

Bun, M.J.G. (2010). NWO VIDI grant (nr 452-10-015, budget: 750,000 Euro) for project titled ‘Causal inference with panel data’.

Gao, Z. (2010). NWO Rubicon fellowship for his proposal “Robust estimation and policy analysis in dynamic economic models”.

Garderen, K.J. (2010). European Doctorate in Economics Erasmus Mundus has been selected for funding under the 2010 Erasmus Mundus Action 1 Call for proposals (EACEA/29/09).

Kiviet, J.F. (2010). NWO Open competition grant (nr 404-10-116, budget 208,193 Euro) for Ph.D. project titled ‘Statistical inference methods regarding effectivity of endogenous policy measures’.

Various activities

Boswijk, H.P. (2010, 15-17 December), Co-teaching a Ph.D. course on “Econometric Analysis of the I(1) Cointegrated VAR Model and its Recent Extensions”, University of Copenhagen, Denmark.

Garderen, K.J. (2010). Coordinator for the Quantitative Economics Doctorate (QED) which is a programme of doctoral studies in Economics jointly organised by the University of Alicante (Spain), University of Amsterdam (The Netherlands), the University of Bielefeld (Germany), the University of Copenhagen (Denmark), the University "Nova" of Lisbon (Portugal), the University Paris I (Panthéon-Sorbonne), the University of Venice (Italy), and the University of Vienna (Austria). It allows UvA Econometrics Ph.D. students to study at the partner universities and to participate in the QED conferences.

Kiviet, J.F. (2010, 30 January – 22 April). Visited New York University as "Visiting Guest Faculty", within the UvA-NYU exchange programme.

Kiviet, J.F. (2010, 10 May – 4 June). Taught a QED Ph.D. course at the University of Alicante (Spain) on "Monte Carlo and Bootstrap methods in econometrics".
Klein, A. (2010). Mathematical Reviews for the American Mathematical Society.

CHAPTER 6: OPERATIONS RESEARCH & MANAGEMENT

Programme director: Prof. dr. N.M. van Dijk
Department: Quantitative Economics
METIS-code: uva/fee/res/or/prog
JEL-classification: C4
Website: www.ase.uva.nl/or
Starting date programme: 1989
VSNU-scores 2001-2007: Quality: 3.5, Productivity: 3, Relevance: 4, Viability: 3.5

6.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Adan, I.J.B.F.	prof dr	hgl	-	0,01	0,10	0,10	KE	1
Al-Ibrahim, A.	drs	Ph.D.	0,45	-	-	-	KE	1
Al-Ibrahim, A.	drs	Ph.D.	0,15	0,33	-	-	KE	3
Dijk, N.M. van	prof dr	hgl	0,50	0,50	0,50	0,50	KE	1
Duin, C.W.	dr	ud	0,46	0,46	0,46	0,46	KE	1
Haijema, R.	drs	Ph.D.	0,32	-	-	-	KE	1
Hontelez, J.A.M.	ir	ud	-	-	0,11	0,11	KE	1
Joustra, P.	drs	Ph.D.	0,30	0,30	0,30	-	AMC	1
Nunez Queija, R.	dr	uhd	-	0,08	0,43	0,43	KE	1
Sluis, H.J. van der	dr	ud	0,50	0,50	0,50	0,50	KE	1
Volgenant, A.	dr	uhd	0,39	0,39	0,27	0,25	KE	1
Wal, J. van der	prof dr	hgl	0,25	0,25	0,25	0,10	KE	1
Total 1st flow of funds			3,17	2,49	2,92	2,45		
Total 2nd flow of funds			0,00	0,00	0,00	0,00		
Total 3rd flow of funds			0,15	0,33	0,00	0,00		
Total 1st f.o.f. excl. Ph.D.'s			2,10	2,19	2,62	2,45		
Total 1st-3rd flow of funds			3,32	2,81	2,82	2,45		
Ph.D. students			1,22	0,63	0,30	0,00		

6.2 PROGRAMME DESIGN

The general research mission of the Programme can be formulated as threefold

- (i) The development and continuation of fundamental theoretical research in the areas of deterministic and stochastic operations research.
- (ii) The application and development of scientific research in these fields for technological and infrastructure applications.
- (iii) The dissemination of general insights and scientific results from the field of Operations Research for daily-life non-technical logistical situations.

Accordingly, three lines of research and associated activities are distinguished:

I Fundamental Theoretical Research

In this category in turn three directions of research are followed:

1.1 Combinatorial Optimisation specialised to:

- Generalisations of the Travelling Salesman Problems such as Peripatetic Salesman Problem;
Steiner Tree Problems on Graphs and Generalisations as multiweighted problems;
- Degree constrained trees and problems with criteria as bottleneck, minimum deviation, and partial sum;
- Linear Assignment Problems

This research is focused on both exact and heuristic methods. The heuristic methods are of most interest from a practical point of view, as in many cases a nearly optimal solution is also sufficient. Special interest has been developed for the numerical implementation of algorithms.

1.2 Queuing Network Analysis

Stochastic service networks naturally arise in manufacturing (production lines), computer science (computer networks), telecommunications (long distance, satellite and mobile communications) and transportation (railway systems, traffic lights). The research themes are:

- the development of closed form (exact) expressions for stochastic service networks, most notably product form expressions for queuing networks;
- the development of simple insights in when and when not a stochastic network has this so-called product form steady state distribution.
- simple performance bounds for networks that are non-solvable due to practical phenomena such as finite capacity constraints, job-priorities or breakdowns.

1.3 Markov Chain Analysis

1.3.1 Error Bound Analysis for Approximate Markov Chain Modelling

- As practical systems that arise in manufacturing, telecommunications and computer networking are often non-solvable for the reasons mentioned, based on the insights and results above, approximations and bounds have to be developed. The error introduced by such approximations or bounds is of practical interest. To this end a technique has been developed to provide analytical error bounds. The application and extension of this technique remains a continuing research interest for a variety of situations. Particular research problems are:
- error bounds for non-exponential stochastic networks;
- error bounds for the truncation of Markov chains;
- error bounds for sensitivity analysis.

1.3.2 Continuous time and large Markov Chain Modelling

- Continuous time Markov Chain Models are known to provide a powerful tool for the description and modelling for a variety of applied fields. Unfortunately, for computational purposes these systems are generally hard if not impossible to handle, as the state spaces are usually far too large. Different methods to overcome this intractability are of ongoing research, such as by aggregation methods and uniformization.

II Fundamental Applied Research

This concerns queuing network and Markov chain modelling for a number of applied technical fields in order to obtain computationally attractive results. Most notably:

- Telecommunications (mobile communications, long-distance communications)
- Transportation Networks (Public transportation, Railways)
- Inventory systems and Reliability Networks

III Practical Research for Daily-life Logistics (Operations Management)

This concerns the application of insights and techniques from Operations Research for a number of practical logistical environments such as in:

- Administrative and Production Logistics
- Health care and hospitals
- Call Centers

6.3 PROGRAMME EVALUATION

During 2009 the results of the research visitation over the years 2001-2007 were given out. According to the programme leader these did not at all reflect the changes and the quality of the research that had taken place over former years. As argued in a response letter, that has remained unanswered, a score of 2-3 points would have been in place.

Roughly speaking, in response to the earlier research visitation, over the years the group had shown

- An overall research mind setting and participation among the group
- Different research interactions among various members
- Productivity by each of the individual members

In addition in July 2010 it has been shown that the A/B publications during 2005-2009 had gone up strongly, if not had risen to among by far the highest over the last 5 years (2005-2009) and 3 years (2007-2009) within ASE.

No doubt that a continuation of this strong growth would have continued and led to further interactive ramifications both internally and externally, among which Ph.D.'s and externally financially supported projects, had the group not been threatened of having to be unfairly dismissed.

Clearly this notification has strongly affected both the research time and motivation over the last year.

Nevertheless, research was still undertaken, (see reports and to appear) particularly in the category of fundamental applied research. (E.g. see collaborative report : van Dijk, van der Sluis, Núñez-Queija, Haijema, Kortbeek, Al-Ibrahim & van der Wal) which shows and promotes the potential of a new combination of OR techniques and computational support by simulation.

As for publications, all three research categories of the programme design are represented in 2010 and forthcoming publications by: (only the names of group members are listed and therefore not necessarily in order as they appear in the publications).

Fundamental theoretical research (category 1)

Adan et.al. (3x) / Adan & van der Wal (2x)
Van Dijk (5x) / Boucherie & van Dijk /
Duin et. al. / Volgenant et. al. / Nunez Queija (2x)

Fundamental Applied Research (category 2)

Adan et.al. (6x) / Volgenant /
Duin & Volgenant / Duin et. al.

Practical Research (category 3)

Joustra and van Dijk (2x) / Joustra, van Dijk & van der Sluis /
Van der Wal & Van Dijk et. al./ Hontelez et. al.

Ph.D.'s and funding

An obvious weak point of the programme had been and is the limited number of Ph.D. completions and at present a nearly total lack of Ph.D.

In 2010 there has been one Ph.D. completion based upon a theoretical framework for train conflicts (category 2) by A. Al-Ibrahim. This work has been highly regarded within the Dutch Railways (Prorail innovation and traffic security management) and is up for real-life implementation.

In 2011 another Ph.D. completion will take place (in close collaboration with and by now – after 4 year halftime – for 50% funded by the Academic Medical Center).

The ambitious set-up for 5 Ph.D.'s, for which 50% of external financing would be sought, would and will remain standing will it not been for the group to be discarded.

The evaluation can be summarized in the following SWOT analysis of the activities.

Strengths:

- Its strive for and realization of a substantial number of A/B papers within the economic field (despite the fact that OR is not considered to be within its core).
- The theoretical and technical quality of the programme and its members.
- Its practical orientation
- The internal collaborations
- Its collaboration with real life institutes.
- The international contacts and collaborations.

Weaknesses:

- An almost complete lack of Ph.D. completions now and in coming years.
- The group size in combination with part-time availabilities.
- The interaction between deterministic and stochastic OR.

Opportunities:

- External funding for Ph.D. research (NWO / STW/ Industry Research Institutes)
- Exploiting the combined approach of theoretically supported but also computationally oriented research with present-day software potential, most notably computer simulation. (Mentioned by the visitation committee as: a distinctive expertise).
- More exploiting the large number of international contacts.
- The development of OR within Healthcare, particularly within the field of blood medicine.

Threats:

- Its unfairly dismissal due to financial deficits of the department.
- Not sufficiently specialized judgment of its quality.

6.4 RESOURCES AND FUNDING

Since October 2010 – after 4 year halftime – the Academic Medical Center funds the Ph.D. position of Paul Joustra. His Ph.D. completion will take place in 2011.

6.5 OUTPUT

Key publications

- Boon, M.A.A., Adan, I.J.B.F., Boxma, O.J. (2010). A polling model with multiple priority levels. *Performance Evaluation*, 67(6), 468-484. [A]
- Dijk, N.M. van & Kortbeek., N. (2009). Erlang Loss Bounds for OT-ICU systems. *Queueing Systems*, 63, 253-275. [A]
- Dijk, N.M. van & Sluis, E. van der (2009). Call Packing Bound for Overflow Loss Systems.

- Performance Evaluation*, 66, 1-20. [A]
- Dijk, N.M. van & Sluis, E. van der (2008). To Pool or not to Pool in Call Centers. *Production and Operations Management*, 17, 296-305. [A]
- Dijk, N.M. van, Haijema, R., Wal, J. van der & Smit Sibinga, C. (2009). Blood Platelet Production: A novel approach for practical optimization. *Transfusion*, 49, 411-420. [B]
- Duin, C.W. & Volgenant, A. (2010). Improved polynomial algorithms for robust bottleneck problems with interval data. *Computers & Operations Research*, 37, 909-915. [B]
- Duin, C.W. & Sluis, E. van der (2006). On the complexity of Adjacent Resource Scheduling. *Journal of Scheduling*, 9, 49-62. [B].
- Verloop, I.M. & Núñez Queija, R. (2009). Achievable performance of resource allocations in bandwidth-sharing networks. *Performance Evaluation*, 66, 59-77. [A]
- Verloop, I.M. & Núñez Queija, R. (2010). Asymptotically optimal parallel resource assignment with interference. *Queueing Systems*, 65, 43-92. [A]
- Vlasiou, M., Adan, I.J.B.F. & Boxma, O.J. (2009). A two-station queue with dependent preparation and service times. *European Journal of Operational Research*, 195, 104-116. [A]

Forthcoming

- Adan, I., Bekkers, J., Dellaert, N., Jeunet, J. & Vissers, J. (2011). Improving operational effectiveness of tactical master plans for emergency and elective patients under stochastic demand and capacitated resources. *European Journal of Operational Research*. [A]
- Adan, I.J.B.F. & Wal, J. van der (2011). Mean value techniques (Chapter 13). *Queueing Networks: A Fundamental Approach*, Springer, 561-586. [B]
- Boon, M.A.A., Winands, E.M.M., Adan, I.J.B.F. & Wijk, A.C.C. van (2011). Closed-form waiting time approximations for polling systems. *Performance Evaluation*, 68(3), 290-306. [A]
- Boucherie, R. J. & Dijk, N.M. van (2011). *Queueing Networks: A Fundamental Approach*, Springer, Berlin (editors). [B]
- Dijk, N.M. van (2011). On Practical Product Form Characterization. Part A: Product Forms: Single Station Hierarchy. *Queueing Networks: A Fundamental Approach*, Springer, 1-40. [B]
- Dijk, N.M. van (2011). On Practical Product Form Characterization. Part B: Product Forms: Tandem and Cluster Structures. *Queueing Networks: A Fundamental Approach*, Springer, 41-83. [B]
- Dijk, N.M. van (2011). Error Bounds and Comparison Results: The Markov Reward Approach for Queueing Networks. Part A: General results. *Queueing Networks: A Fundamental Approach*, Springer, 397-424. [B]
- Dijk, N.M. van (2011). Error Bounds and Comparison Results: The Markov Reward Approach for Queueing Networks. Part B: Applications. *Queueing Networks: A Fundamental Approach*, Springer, 425-459. [B]
- Janssen, M.C., Verbeek, R.J.D., Volgenant, A. (2011) On scheduling a single machine with resource dependent release times. *Computers & Operations Research*, 38, 713-716. [B]
- Joustra, P.E., Kolfin, R., Dijk, N.M., Koning, C.C.E., & Bakker P.J.M. (2011). Reduce fluctuations in capacity to improve the assessibility of radiotherapy treatment cost-effectively. *Flexible Services and Manufacturing Journal*. [B]
- Joustra, P.E., Wit, J. de, Dijk, N.M. van & Bakker P.J.M. (2011). How to juggle with priorities? An interactive tool to quantitatively support medical management with strategic patient-mix decisions. *Health care Management Science*. [B]
- Kort, W. de, Janssen, M., Kortbeek, N., Jansen, M., Wal, J. van der & Dijk, N.M. van (2010). Platelet Pool Inventory Management: theory meets practice. *Transfusion*. [B]
- Smidt-Destombes, K.S. de, Elst, N.P. van, Barros, A.I., Mulder, H. & Hontelez, J.A.M. (2011). A spare parts model with cold-standby redundancy on system level. *Computers & Operations Research*, 38, 985-991. [B]
- Veeger, C.P.L., Etman, L.F.P., Lefebber, A.A.J, Adan, I.J.B.F., Herk, J. van & Rooda, J.E. (2011). Predicting cycle time distributions for intergrated processing workstations: an aggregate modeling approach. *IEEE Transactions on Semiconductor Manufacturing*.

- Verloop, I.M., Ayesta, A. & Núñez Queija, R. (2011). Heavy-traffic analysis of a multiple-phase network with discriminatory processor sharing. *Operations Research*. [A]
 Winands, E.M.M., Adan, I.J.B.F. & Houtum, G.J.J.A.N. van (2011). The stochastic economic lot scheduling problem: a survey. *European Journal of Operational Research*, 210(1), 1-9. [A]
 Yakoya, D., Duin, C.W., & Yamada, T. (2011). A Reduction Approach to the Repeated Assignment Problem. *European Journal of Operational Research*, Volume 210, 185-193. [A]

Publications in numbers

<i>Operations Research & Management</i>				2010
1) Academic publications	a) in refereed journals	A	5	14
		B	7	
		Other	2	
	b) in other journals		0	0
	c) book chapters		0	0
	d) proceedings		1	1
Total				15
2) Books			0	0
3) Ph.D. theses			1	1
4) Professional publications			0	0
5) Popular publications			0	0
6) Working papers			6	6
Total				22

Dissertations

- Al-Ibrahim, A. (2010, May 27). Dynamic Delay Management at Railways: A Semi-Markovian Decision Approach. University of Amsterdam. [promotor prof. dr. ir. J van de Wal / co-promotor prof. dr. N.M. van Dijk]

Academic publications (excluding publications in/of books) – refereed

- A**
- Boon, M.A.A., Adan, I.J.B.F., Boxma, O.J. (2010). A polling model with multiple priority levels. *Performance Evaluation*, 67(6), 468-484.
 Boon, M.A.A., Wijk, A.C.C. van, Adan, I.J.B.F., Boxma, O.J. (2010). A polling model with smart customers. *Queueing Systems: Theory and Applications*, 66(3), 239-274.
 Gandhi, A., Harchol-Balter, M., Adan, I.J.B.F. (2010). Server farms with setup costs. *Performance Evaluation*, 67(11)(11), 1123-1138.
 Mekking, M. & Volgenant, A. (2010). Solving the 2-rooted mini-max spanning forest problem by branch and bound. *European Journal of Operational Research*, 203, 50-58.
 Verloop, I.M. & Núñez Queija, R. (2010). Asymptotically optimal parallel resource assignment with interference. *Queueing Systems*, 65, 43-92.
- B**
- Adan, I.J.B.F., Boxma, O.J., Wal, J. van der (2010). In memoriam Jaap Wessels (1939-2009). *Statistica Neerlandica*, 64(2), 131-132.
 Adan, I.J.B.F., Hurkens, C.A.J., Weiss, G. (2010). A reversible Erlang loss system with multi-type customers and multi-type servers. *Probability in the Engineering and Informational Sciences*, 24(4), 536-548.
 Bijsterbosch, J. & Volgenant, A. (2010). Solving the Rectangular assignment problem and applications. *Annals of Operations Research*, 181, 443-462.
 Cheung, S.-K., Boucherie, R.J., Núñez Queija, R. Quasi-stationary analysis for queues with temporary overload. *Proc. ITC 22* (2010).

- Duin, C.W. & Volgenant, A. (2010). Improved polynomial algorithms for robust bottleneck problems with interval data. *Computers & Operations Research*, 37, 909-915.
- Duin, C.W. & Volgenant, A. (2010). On a pair of job-machine assignment problems with two stages. *Computers & Operations Research*, 37, 334-340.
- Gong, H., Tang, L. & Duin, C.W. (2010) A two-stage flow shop scheduling problem on a batching machine and a discrete machine with blocking and shared setup times. *Computers & Operations Research*, 37, 960-969.
- Jonckheere, M.T.S., Núñez Queija, R., Prabhu, B.J. Performance analysis of traffic surges in multi-class communication networks. *Proc. ITC 22* (2010).
- Joustra, P.E., Sluis, E. van der & Dijk, N.M. van (2010). To Pool or not to Pool in Hospitals. *Annals of Operations Research*, 178, 77-89.

Other

- Boon, M.A.A., Adan, I.J.B.F., & Boxma, O.J. (2010). A two-queue polling model with two priority levels in the first queue. *Discrete Event Dynamic Systems*, 20(4), 511-536.
- Perrenet, J.C., Adan, I.J.B.F. (2010). The academic merits of modelling in higher mathematics education: A case study. *Mathematics Education Research Journal*, 22(2), 121-140. [B]

Academic publications (in/of books) – refereed

- A Williamson, C., R. Núñez Queija (editors). Special Issue of Performance Evaluation, Vol. 67, Issue 11.

Academic publications (in proceedings) – non-refereed

- Nazarathy, Y., M.T.S. Jonckheere, R. Núñez Queija. Scaling limits of cyclically varying birthdeath processes and applications. In: Proceedings of MCQT 2010 (abstract).
- Veeger, C.P.L., Etman, L.F.P., Rooda, J.E. & Adan, I.J.B.F. (2010). Single-server aggregation for a re-entrant flow line. In B. Johansson, S. Jain, J. Montoya-Torres, J. Hugan & E. Yücesan (Eds.), Proceedings of the 2010 Winter Simulation Conference (Baltimore MD, USA, December 5-8, 2010). (pp. 1-12).

Academic publications (working- and discussion papers)

- Dijk, N.M. & Kortbeek N. (2010). On the rejection probability in OT-ICU systems, *AE Report* 1/2010.
- Dijk, N.M. van, Sluis, E. van der, Núñez-Queija, R., Haijema, R., Kortbeek, N., Al-Ibrahim, A., & Wal, J. van der (2010). OR And Simulation in Combination for Optimization. *AE Report*, 2/2010.
- Joustra, P.E., Dijk, N.M. van & Bakker P.J.M. (2011). Reduce fluctuations in capacity to improve the accessibility of radiotherapy treatment cost-effectively. *AE Report*, 3/2010.
- Joustra, P.E., Wit, J. de, Dijk, N.M. van & Bakker P.J.M. (2011). How to juggle with priorities? An interactive tool to quantitatively support medical management with strategic patient-mix decisions. *AE Report*, 4/2010.
- Kort, W. de, Janssen, M., Kortbeek, N., Jansen, M., Wal, J. van der & Dijk, N.M. van (2010). Platelet Pool Inventory Management: theory meets practice. *AE Report*, 6/2010.
- Sluis, E. van der & Volgenant, A. (2010). Minimizing the number of tardy jobs on a single machine with linearly deteriorating maintenance. *AE Report*, 5/2010.

Contributions to academic conferences, workshops and seminars

- Dijk, N.M. van (2010, March 7.). OR and Simulation in Combination for Health Care Optimization. MHPW 2010: Making Healthcare Processes Work, Eindhoven. Lecture.

- Dijk, N.M. van (2010, March 7.). On the rejection probability in OT-ICU systems. 16th International Seminar on Production Economics, Innsbruck, Austria. Lecture.
- Dijk, N.M. van (2010, March 30). OR and Simulation in Combination for Health Care Optimization. The 6th IMA Conference on Quantitative Modelling in the Management of Health Care, London, England. Lecture.
- Núñez Queija, R. (September 9, 2010). 23rd International Teletraffic Congress, Lecture.
- Núñez Queija, R. (October 1, 2010). 2nd Dutch-Israeli Workshop on Queueing Theory, Lecture.
- Sluis, E. van der (2010, 27 August). Simple Heuristic for Coordinating Replenishments. 16th International Symposium on Inventories. Budapest, Hungary. Lecture.

Organisational contributions to conferences, workshops and seminars

- Adan, I.J.B.F. (2010). Member of steering committee for workshop MHPW 2010: Making Healthcare Processes Work, February 15-16, 2010.
- Adan, I.J.B.F. (2010). Co-organiser of EURANDOM Second Israeli-Dutch workshop on Queueing Theory, September 29 - October 1, 2010.
- Adan, I.J.B.F. (2010). Organiser of invited session on Stochastic Models of Manufacturing and Service Systems at INFORMS Annual Meeting 2010 Austin.
- Núñez Queija, R. (2010): Technical Programme Committee chair for Performance 2010 (co-chair C. Williamson).
- Núñez Queija, R. (2010): Technical Programme Committee member for ACM SIGMETRICS 2010;
- Núñez Queija, R. (2010): Technical Programme Committee member for ITC International Teletraffic Congress 2010;
- Núñez Queija, R. (2010): Technical Programme Committee member for MAMA Workshop on Matrix Analytical Methods and Analysis 2010;
- Núñez Queija, R. (2010): Technical Programme Committee member for NGI Conference on Next Generation Internet 2010;
- Núñez Queija, R. (2010): Technical Programme Committee member for QoSIm Workshop on the Evaluation of Quality of Service through Simulation 2010;
- Núñez Queija, R. (2010): Organiser (with B. Zwart) of the national Queueing Colloquium.

Participation in academic networks & fellowships

- Adan, I.J.B.F. (2010). Member LNMB (Landelijk Netwerk Mathematische Besliskunde).
- Dijk, N.M. van (2010). Member LNMB (Landelijk Netwerk Mathematische Besliskunde) and ORSA (Operations Research Society of America).
- Núñez Queija, R. (2010). Member of IFIP (Working Group 7.3), Stieltjes Institute and LNMB (Landelijk Netwerk Mathematische Besliskunde).
- Sluis, H.J. (2010). Member of INFORMS (Institute for Operations Research and the Management Sciences) and ISIR (International Society for Inventory Research).
- Volgenant, A. (2010). Member LNMB (Landelijk Netwerk Mathematische Besliskunde).
- Wal, J. van der (2010). Member LNMB (Landelijk Netwerk Mathematische Besliskunde).

Editor or member of editorial board

- Adan, I.J.B.F. (2010). Associate Editor of *Queueing Systems, PEIS, Statistica Neerlandica & Mathematical Methods of Operations Research*.
- Adan, I.J.B.F. (2010). Area Editor of *Asia-Pacific Journal of Operations Research*.
- Adan, I.J.B.F. (2010). Guest Editor of *Special Issue of Annals of Operations Research: Polling Systems*.
- Núñez Queija, R. (2010). Associate Editor of *Performance Evaluation*
- Núñez Queija, R. (2010). Associate Editor of *Mathematical Methods of Operations Research*.
- Núñez Queija, R. (2010). Volume Editor (joint with C. Williamson) of *Performance Evaluation*, Vol. 67, Issue 11.

Núñez Queija, R. (2010). Technical Programme Committee Chair for *Performance* 2010.
Volgenant, A. (2009). Advisory editor of *Computers & Operations Research*.

Referee activities

Dijk, N.M. van (2009). Referee for *Queueing Systems, Applied probability, European Journal of Operational Research, International Journal of Production Economics, Performance Evaluation, Journal of the Royal Statistical Society, Mathematical Methods in Operations Research, Health Care Management Science*.
Duin, C.W. (2010). Referee for *Computers & Operations Research, European Journal of Operational Research, Naval Research Logistics*.
Núñez Queija, R. (2010). Referee for *Applied Probability Trust Journals (Advances in Applied Probability and Journal of Applied Probability), Mathematical Methods of Operations Research, Operations Research, Performance Evaluation, Queueing Systems*.
Veen, J.A.A. van der (2009). Referee for *INFORMS Journal on Computing, Journal of the Operational Research Society, Ars Combinatoria*.
Volgenant, A. (2010). Referee for *Computers & Operations Research, European Journal of Operational Research*.

Membership of academic committees (including Ph.D. committees outside the FEB)

Adan, I.J.B.F. (2010). Invited member promotion committee of Paul Beekhuizen. Promotor: prof. O.J. Boxma. Technische Universiteit Eindhoven.
Adan, I.J.B.F. (2010). Promotion committee of Casper Veeger. Promotor: prof. J.E. Rooda, prof. I.J.B.F. Adan. Technische Universiteit Eindhoven.
Adan, I.J.B.F. (2010). Invited member of promotion committee of Assil Al-Ibrahim. Promotor: prof. J. Van der Wal, prof. N.M. van Dijk. University of Amsterdam.
Adan, I.J.B.F. (2010). Invited member of promotion committee of Josine Bruin. Promotor: prof. J. Van der Wal. Technische Universiteit Eindhoven.
Núñez Queija, R. (2010). Invited member promotion committee of A. Al-Ibrahim (University of Amsterdam, May 27, 2010).
Núñez Queija, R. (2010). Invited member promotion committee of P Beekhuizen (Eindhoven University of Technology, February 4, 2010).

Grants, prizes and honours

Núñez Queija, R. Appointed Full Professor of Industrial Mathematics at the Faculty of Sciences, University of Amsterdam.

CHAPTER 7: EQUILIBRIUM, EXPECTATIONS & DYNAMICS

Name programme director: Prof.dr. C.H. Hommes & dr.ir. F.O.O. Wagener
Department: Quantitative Economics
Metis-code: uva/fee/res/e&d/prog
JEL-Classification: C, D, E6
Web-address www.ase.uva.nl/cendef
Starting date Programme: 1998
VSNU-Scores 2001-2007: Quality: 4.5, Productivity: 4.5, Relevance: 5, Viability:5

7.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total</i> <i>2007</i>	<i>Total</i> <i>2008</i>	<i>Total</i> <i>2009</i>	<i>Total</i> <i>2010</i>	<i>Dept.</i>	<i>Funding</i>
Anufriev, M.	dr	postdoc	0,80	0,54	-	-	KE	2
Anufriev, M.	dr	ud	-	0,16	0,50	0,50	KE	1
Assenza, T.	dr	postdoc	1,00	0,33	0,11	0,11	KE	3
Bao, T.	msc	Ph.D.	-	-	0,20	0,60	KE	1
Bekiros, S.	dr	postdoc	1,00	-	-	-	KE	2
Bekiros, S.	dr	guest	-	0,00	0,00	-	KE	1
Cornea, A.	dr	postdoc	-	0,12	0,25	0,00	KE	3
Diks, C. (CeNDEF)	dr	uhd	0,50	0,50	0,50	0,50	KE	1
Furth, D.	dr	guest	0,00	0,00	0,00	-	KE	1
Heemeijer, P. (CeNDEF)	drs	Ph.D.	0,00	-	-	-	KE	1
Heemeijer, P. (CeNDEF)	drs	ud	0,50	-	-	-	KE	2
Heemeijer, P. (CeNDEF)	drs	ud	-	0,25	-	-	KE	3
Heemeijer, P. (CeNDEF)	dr	guest	-	-	0,00	-	KE	1
Heijnen, P.	dr	postdoc	0,80	0,54	-	-	KE	2
Heijnen, P.	dr	ud	-	0,16	0,50	0,33	KE	1
Hommes, C.H. (CeNDEF)	prof dr	hgl	0,50	0,50	0,50	0,50	KE	1
Kiseleva, T.	msc	Ph.D.	0,60	0,60	0,60	0,30	KE	2
Koster, M.A.L.	dr	ud	0,50	0,50	0,50	0,50	KE	1
Massaro, D.	msc	Ph.D.	0,20	0,60	0,60	0,60	KE	1
Mohammadian Moghayer, S.	msc	Ph.D.	0,60	0,60	0,60	0,45	KE	1
Ochea, M.I.	msc	Ph.D.	0,60	0,40	0,00	-	KE	1
Ramer, R.	dr	ud	0,15	0,30	0,08	0,03	KE	1
Tuinstra, J. (CeNDEF)	dr	uhd	0,50	0,50	0,50	0,50	KE	1
Wagener, F. (CeNDEF)	dr	uhd	0,80	0,80	0,80	0,80	KE	2
Weddepohl, H.N.	prof dr	guest	0,00	0,00	0,00	-	KE	1
Weide, R. van der (CeNDEF)	drs	Ph.D.	0,00	0,00	0,00	-	KE	1
Zeppini-Rossi, P.	msc	Ph.D.	-	0,20	0,60	0,60	KE	1
Zovko, I. (CeNDEF)	dr	guest	0,00	0,00	0,00	-	KE	1
Zhu, M.	dr	postdoc	-	-	0,33	1,00	KE	3
Total 1st flow of funds			3,55	4,42	5,08	5,11		
Total 2nd flow of funds			4,50	2,48	1,40	1,10		
Total 3rd flow of funds			1,00	0,70	0,69	1,11		
Total 1st f.o.f. excl. Ph.D.'s			2,15	2,62	3,08	2,86		
Total 1st-3rd flow of funds			9,05	7,60	7,17	7,32		
Ph.D. students			2,00	2,40	2,60	2,55		

7.2 PROGRAMME DESIGN

The objective of the programme is the development of (mathematical) economic theory, focussing on the understanding of economic processes. The programme aims at developing models of economic behaviour in different areas of economics, including microeconomics, macroeconomics and finance. Emphasis is given to behavioural models of dynamic market phenomena.

The research group employs a multi-disciplinary approach. The models are studied both from a theoretical and a computational perspective, and the validity of the models is tested in laboratory experiments with human subjects as well as empirically using real data. The NWO-Vernieuwingsimpuls Information Flows in Financial Markets, the EU STREP project Financial Markets and Complexity and the NWO-VIDI programme *Structural Stability in Economic Dynamics* are part of the research programme.

The programme can be subdivided into five closely related and interacting research themes:

Equilibrium theory: Individual optimising behaviour of economic agents generates aggregate supply and demand of commodities, as a function of prices and individual expectations. In equilibrium supply and demand are equal. Many types of equilibrium can be studied: partial versus general, competitive versus monopolistic, dynamic versus static, temporary equilibrium, single, representative agent as well as heterogeneous, interacting agents equilibria. The existence of equilibria is studied, as well as conditions for stability or instability of dynamic adjustment processes.

Game theory & Industrial organisation: This part of the programme focuses on modelling strategic behaviour of economic agents in markets with imperfect competition, such as duopoly and oligopoly. Equilibria in non-cooperative games (e.g. duopoly, oligopoly) as well as cooperative games (costs sharing, general equilibrium) are studied. Evolutionary games with heterogeneous, boundedly rational strategies competing against each other are also studied.

Expectations and learning: Bounded rationality models of expectation formation and learning schemes are becoming a serious alternative to rational expectations, which was the dominating paradigm until quite recently. The fully rational representative agent is replaced by a large *heterogeneous* population of boundedly rational interacting agents, who form expectations based upon time series observations and update their forecasting rules according to new observations and new information about market fundamentals. Conditions under which learning schemes converge to rational expectations or to a boundedly rational expectations equilibrium with excess volatility are investigated. Formation of expectations is studied in theory, in laboratory experiments with human subjects and in real markets.

Nonlinear economic dynamics: This part of the programme focuses on nonlinear complexity models of dynamic market phenomena. Are market fluctuations mainly caused by random exogenous shocks, or can endogenous nonlinear economic laws of motion explain (a significant part of) the fluctuations? Various deterministic and stochastic economic models are studied theoretically, computationally as well as empirically, attempting to explain the most important stylised facts observed in real economic and financial time series. Emphasis is given to *complex adaptive systems* where markets consist of a large population of agents selecting simple strategies according to their relative success in the recent past. In these evolutionary adaptive systems endogenous variables such as prices and agents' beliefs co-evolve over time.

Dynamic optimisation: Emphasis is given to dynamic optimisation problems in environmental economics, characterised by a conflict between economic benefits and ecological costs. Tools from nonlinear dynamics and bifurcation theory are employed to investigate non-convex dynamic optimisation problems. The main thrust is a structural analysis, that is, investigation of the global solution structure of dynamic optimisation problems and dynamic games. The qualitative changes of these solutions are studied under changes of the parameters. Geometrical methods, like bifurcation theory, normal form theory and perturbation theory, as well as numerical methods yield insights that hold not just at isolated parameter values, but for the complete parameter set.

7.3 PROGRAMME EVALUATION

This programme grew out of a mathematical economics programme Equilibrium and Dynamics, led by Weddepohl, which was quite small until the mid nineties. The group was extended considerably at the end of 1998, thanks to an NWO-MaG Pionier grant awarded to Hommes, to set up the Center for Nonlinear Dynamics in Economics and Finance (CeNDEF). At that time the programme changed from a small specialized mathematical economics programme into a multi-disciplinary research programme with an emphasis on economic theory, but also running laboratory experiments (in cooperation with Joep Sonnemans at CREED) to test behavioural theories and doing empirical work as well (in cooperation with Peter Boswijk at UvA-Econometrics), in particular nonlinear time series analysis, to test behavioural models empirically. Weddepohl retired in 2002 and Furth and Koster joined the group in 2002, and game theory has been included as one of the research themes of the programme. At the end of 2003, the CeNDEF postdocs Diks, Tuinstra and Wagener obtained tenured positions, so that the continuation of the research program has been ensured. In 2009 the research programme was ranked as one of the three top programmes at the FEB by the VSNU "Visitatiecommissie" (Quality 4.5, Productivity 4.5, Relevance 5, Viability 5). From the report of the committee: "The group (...) is developing very fruitful projects on highly topical current issues."

The year 2010 has again been a very good year. The output was 11 journal articles (of which 4 A publications) and one publication in a book. Moreover Cees Diks and Cars Hommes have been awarded an NWO-Complexity grant for the project "Understanding financial instability through complex systems", jointly with DNB. The programme is internationally established, as is shown by excellent citation statistics (e.g. according to the Science Citation Index (SCI) in 2010 more than 300 citations of published work by group members), many (invited) lectures at international seminars, conferences and workshops by various members of the research group. In the IDEAS/RePEc ranking of Top 20% institutes (<http://ideas.repec.org/top/top.netherlands.html>), CeNDEF ranks as number 16. This ranking contains faculties of economics and departments; among the small institutes of the order of a research group (about 10 researchers) CeNDEF ranks 3rd on the list (after the Finance Group, UvA, and SCHOLAR, UvA).

Mei Zhu, who was a postdoc in the EU-POLHIA project, left the group in December. Daan in 't Veld joined as Ph.D. student.

The evaluation can be summarized in the following SWOT analysis of the CeNDEF activities.

Strengths: international reputation as an excellent research group on nonlinear dynamics and complexity applications in economics and finance, high scientific impact (e.g., with almost 280 citations, Brock and Hommes, *Econometrica* 1997 is one of the best cited journal articles co-authored by a Dutch economist), regular international visitors, active seminars and

international workshops, own working paper series, frequently visited website, good facilities for computing and travel.

Weaknesses: relatively few publications in top mainstream journals, where multi-disciplinary work and non-mainstream approach such as agent-based modelling and complexity modelling are far from being well accepted; the number of links with practitioners and policy makers has been relatively low, but is now increasing.

Opportunities: development of UvA Graduate School in Economics; application of group-specific know-how to core economic problems, to demonstrate in this way the value of the programme's characteristic approach; developing more policy oriented research, e.g. through a new project on heterogeneous expectations in macro economics and monetary policy; for example, the NWO-complexity project is a research project jointly with researchers and policy makers at DNB.

Threats: it remains difficult to attract suitable Ph.D. from the Tinbergen Institute; more flexibility is needed, in particular the possibility to recruit Ph.D. students from the UvA MSc Econometrics programme or comparable relevant international MSc programmes. A multidisciplinary group is likely to be handicapped when evaluated in a mono-disciplinary environment; finally, the complexity of the tools used may turn out to be an impediment at disseminating the research approach.

7.4 RESOURCES AND FUNDING

The budget received from ASE-RI every year (about 12.000 Euro) only covers on average one conference per researcher per year. In the last couple of years the remaining CeNDEF budget (from the NWO-Pionier grant 1998-2003) was able to cover additional conferences, workshops, etc., if desired. A budget of the Faculty covers some of the costs for the Economics Colloquia; another budget of the Tinbergen Institute covers the costs of joint research seminars Institutions and Decision Analysis, together with CREED (UvA) and the VU mathematical economics group.

The group has been quite successful in obtaining additional external funding. In July 2005 Wagener obtained a NWO-MaGW VIDI grant for the research proposal “Structural Stability in Economic Dynamics”, which ended in December 2010. This project employs tools from nonlinear dynamics and bifurcation theory to investigate non-convex dynamic optimisation problems characterized by a conflict between economic benefits and environmental externalities. In September 2006 two Ph.D. students (Kiseleva and Mohammadian Moghayer) started working on this project and a postdoc (Heijnen) started in December 2006.

CeNDEF is part of a consortium of six research groups who obtained an EU FP7 grant for the collaborative project Monetary, Fiscal and Structural Policies with Heterogeneous Agents (POLHIA), which started november 2008 and will end october 2011. Mei Zhu has been appointed as postdoc under this programme.

This year, Cees Diks and Cars Hommes have obtained a NWO-Complexity grant of K€ 440 for the research proposal “Understanding financial instability through complex systems”, jointly with DNB. A post-doc and a Ph.D. student will be funded through this grant.

7.5 OUTPUT

Key publications

- Anufriev M., Bottazzi G. and Pancotto, F. (2006). Equilibria, stability and asymptotic dominance in a speculative market with heterogeneous agents. *Journal of Economic Dynamics and Control*, 30 (9-10), 1787-1835.
- Brock, W.A., Hommes, C.H. & Wagener, F.O.O. (2009). More hedging instruments may destabilize markets. *Journal of Economic Dynamics & Control*, 33, (11), 1912-1928.
- Diks, C.H.G. and Panchenko, V. (2006). A new statistic and practical guidelines for nonparametric Granger causality testing. *Journal of Economic Dynamics & Control*, 30, (9-10), 1647-1669
- Hommes, C.H. (2006), Heterogeneous Agent Models in Economics and Finance, In: L. Tesfatsion, K.L. Judd (eds.), *Handbook of Computational Economics, Volume 2: Agent-Based Computational Economics*, Elsevier Science B.V., 1109-1186
- Hommes, C.H., Sonnemans, J., Tuinstra, J. and Velden, H. van de, (2005), Coordination of expectations in asset pricing experiments. *Review of Financial Studies*, 18, 955-980
- Schinkel, M.P., Tuinstra, J. & Rüggeberg, J. (2008). Illinois Walls: How barring indirect purchaser suits facilitates collusion, *RAND Journal of Economics* 39, 683-698.

Forthcoming

- Diks, C. & Vrugt, J. (2011). Least squares hydrologic ensemble forecasting using Mallows model averaging. *Stochastic Environmental Research and Risk Assessment*.
- Dindo, P. & Tuinstra, J. (2011). A class of evolutionary models for participation games with negative feedback. *Computational Economics*.
- Hommes, C.H. (2011). The heterogeneous expectations hypothesis: some evidence from the lab. *Journal of Economic Dynamics and Control*.
- Hommes, C.H., Kiseleva, T., Kuznetsov, Yu.A. & Verbic, M. (2011) Is more memory in evolutionary selection (de)stabilizing? *Macroeconomic Dynamics*.
- Zhu, M., Wang, D. & Guo. M. (2011). Stochastic Equilibria of an Asset Pricint Model with Heterogeneous Beliefs and Random Dividends. *Journal of Economic Dynamics and Control*.
- Zhu, M., Wang, D. & Guo. M. (2011). Existence and Stability of Stationary Solutions of Nonlinear Difference Equations under Random Perturbations. *Journal of Difference Equations and Applications*.

Publications in numbers

<i>Equilibrium, Expectations & Dynamics</i>				2010
1) Academic publications	a) in refereed journals	A	4	
		B	6	
		Other	1	11
	b) in other journals		0	0
		c) book chapters	A	0
		B	1	
		Other	0	1
	d) proceedings		0	0
	Total			12
	2) Books		0	0
3) Ph.D. theses		1	1	
4) Professional publications		4	4	
5) Popular publications		2	2	
6) Working papers		11	11	
Total			30	

Dissertations

Ochea, M.I. (2010, 19 January). Essays on Nonlinear Evolutionary Game Dynamics. Universiteit van Amsterdam. [promotor prof. dr C.H. Hommes]

Academic publications (excluding publications in/of books) – refereed

A

Anufriev, M., & Dindo, P. (2010). Wealth-driven Selection in a Financial Market with Heterogeneous Agents. *Journal of Economic Behaviour & Organisation*, 73(3), 327-58.

Diks, C.G.H., Panchenko, V. & Van Dijk, D.J. (2010). Out-of-sample comparison of copula specifications in multivariate density forecasts. *Journal of Economic Dynamics and Control*, 34(9), 1596-1609.

Hommes, C.H. & Wagener, F.O.O. (2010). Does educative stability imply evolutionary stability? *Journal of Economic Behaviour & Organisation*, 75(1), 25-39.

Kiseleva, T., & Wagener, F.O.O. (2010). Bifurcations of optimal vector fields in the shallow lake system. *Journal of Economic Dynamics and Control*, 34(5), 825-843.

B

Anufriev, M., & Bottazzi, G. (2010). Market Equilibria under Procedural Rationality. *Journal of Mathematical Economics*, 46(6), 1140-1172.

Diks, C.G.H. and Vrugt, J.A. (2010), Comparison of point forecast accuracy of model averaging methods in hydrologic applications. *Stochastic and Environmental Research and Risk Assessment*, 24(6), 809-820.

Sadiraj, V., J. Tuinstra & F. van Winden (2010). Identification of voters with interest groups improves the electoral chances of the challenger. *Mathematical Social Sciences*, 60(3), 210-216.

Saleh, K. & Wagener, F.O.O. (2010). Semi-global analysis of periodic and quasi-periodic normal-internal $k : 1$ and $k : 2$ resonances. *Nonlinearity*, 23(9), 2219-2252.

Sonnemans, J. & J. Tuinstra (2010). Positive expectations feedback experiments and number guessing games as models of financial markets. *Journal of Economic Psychology*, 31(6), 964-984.

Wagener, F.O.O. (2010). Conjugate points and the Leitmann equivalent problem approach. *Applied Mathematics and Computation*, 217(3), 1266-1276.

Other

Wagener, F.O.O. (2010). A parametrised version of Moser's modifying terms theorem. *Discrete and Continuous Dynamical Systems Series S*, 3(4), 719-768.

Academic publications (in/of books) – refereed

B

Assenza, T., Delli Gatti, D. & Gallegati, M. (2010). Financial Instability and Agents' Heterogeneity: A Post Minskyan Research Agenda. In: Papadimitriou D. & Wray, L.R. (eds), *The Elgar Companion to Hyman Minsky*. Cheltenham: Edward Elgar.

Academic publications (working- and discussion papers)

Anufriev, M., Hommes, C.H., Philipse, R.H.S. (2010). Evolutionary Selection of Expectations in Positive and Negative Feedback Markets. *CeNDEF Working paper*, 10-05. University of Amsterdam.

- Anufriev, M., Tuinstra, J. (2010). The impact of short-selling constraints on financial market stability in a model with heterogeneous agents. *CeNDEF Working paper*, 10-03. University of Amsterdam.
- Anufriev, M., Arifovic, J., Ledyard, J., Panchenko, V. (2010). Efficiency of Continuous Double Auctions under Individual Evolutionary Learning with Full or Limited Information. *CeNDEF Working paper*, 10-01. University of Amsterdam.
- Bao, T., and Y. Wang (2010). Heterogeneous Traders, Housing Bubbles and Policies (in Chinese), *CCES Working Papers*. Fudan University.
- Bao, T., Hommes, C., Sonnemans, J., Tuinstra, J., (2010). Individual Expectations, Limited Rationality and Aggregate Outcomes. *CeNDEF Working Paper*, 10-07. Universiteit van Amsterdam
- Bergh, J.C.J.M. van der & Zeppini Rossi, P. (2010). Competing Recombinant Technologies for Environmental Innovation: Extending Arthur's Model of Lock-in. *CeNDEF Working paper*, 10-11. Universiteit van Amsterdam
- Dindo, P. & J. Tuinstra (2010). A class of evolutionary models for participation games with negative feedback. *CeNDEF Working Paper*, 10-09. Universiteit van Amsterdam.
- Flores, R., Koster, M, Lindner, I., and Molina, E. (2010). Networks and Collective Action. *CeNDEF Working Paper*, 10-12. Universiteit van Amsterdam.
- Hommes, C.H. (2010). The Heterogeneous Expectations Hypothesis: Some Evidence from the Lab. *CeNDEF Working paper*, 10-06. Universiteit van Amsterdam.
- Hommes, C.H. & M.I. Ochea (2010). Multiple Steady States, Limit Cycles and Chaotic Attractors in Evolutionary Games with Logit Dynamics. *CeNDEF Working Paper*, 10-04. Universiteit van Amsterdam.
- De Zeeuw, A., Polasky, S. & Wagener, F.O.O. (2010). Optimal Management with Potential Regime Shifts. *CeNDEF Working paper*, 10-10. Universiteit van Amsterdam.

Professional publications

- In 't Veld, D. (2010). Cartel harm with input substitutability: theory and an application. *AENORM*, 67, 9-13.
- Bao, T., (2010). Who Should Have the Control Right in the Organisations? *AENORM*, 67, 48-50.
- Hommes, C.H. (2010). Interview with Cars Hommes. In R. Holt, D. Colander & J. Barkley. Rosser (eds), *European Economics at a Crossroads* (pp. 82-93). Cheltenham: Edward Elgar.
- Hommes, C.H. & Wagener, F.O.O. (2010). Gevaren van financiële vernieuwing. *Economisch Statistische Berichten*, 95(4594), 601-603.

Popular publications

- Sadiraj, V., J. Tuinstra & F. van Winden (2010). Special interest groups and election outcomes. *Medium Econometrische Toepassingen*, 18(1), 12-17.
- Hommes, C.H. (2010). Interview with Cars H. Hommes. The economy as a complex nonlinear system. *Tinbergen Institute Magazine*, 22, Fall 2010, 8-12.

Contributions to academic conferences, workshops and seminars

- Anufriev, M. (2010, 22 February). Efficiency of Continuous Double Auction under Individual Evolutionary Learning with Full or Limited information. Seminar at the University of Amsterdam.
- Anufriev, M. (2010, 5 March). The Impact of Short-Selling Constraints on Financial Market Stability. Seminar at the Bank of Canada, Ottawa.

- Anufriev, M. (2010, 8 March). Interaction of Boundedly Rational Agents and Aggregate Behaviour in Laboratory Experiments. Seminar at the Simon Fraser University, Vancouver, Canada.
- Anufriev, M. (2010, 23 March). The Impact of Short-Selling Constraints on Financial Market Stability. Seminar at the University of Florence, Italy.
- Anufriev, M. (2010, 31 May). The Impact of Short-Selling Constraints on Financial Market Stability. 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, University of Amsterdam.
- Anufriev, M. (2010, 10 June). The Impact of Short-Selling Constraints on Financial Market Stability. Workshop on Interacting Agents and Nonlinear Dynamics in Macroeconomics, University of Udine, Italy.
- Anufriev, M. (2010, 6 July). Evolutionary Selection of Individual Expectations and Aggregate Outcomes in Asset Pricing Experiments. Seminar at the Ruhr-University of Bochum, Germany
- Anufriev, M. (2010, 16 July). Efficiency of Continuous Double Auction under Individual Evolutionary Learning with Full or Limited information. 16th International Conference on Computing in Economics and Finance, City University London, UK.
- Anufriev, M. (2010, 17 September). The Impact of Short-Selling Constraints on Financial Market Stability. Workshop on Expectations, Asset Bubbles and Financial Crises, Erasmus University Rotterdam.
- Bao, T. (2010, February). Incomplete Contract and Divisional Structures. Seminar at Tinbergen Institute Amsterdam, Amsterdam, Netherlands.
- Bao, T. (2010, February). Individual Expectations, Limited Rationality and Aggregate Outcomes. Seminar at Tinbergen Institute Amsterdam, Amsterdam, Netherlands.
- Bao, T. (2010, April). Incomplete Contract and Divisional Structures. NAKRE Research Day, Amsterdam, Netherlands.
- Bao, T. (2010, May). Individual Expectations, Limited Rationality and Aggregate Outcomes. 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Amsterdam, Netherlands.
- Bao, T. (2010, June). Individual Expectations, Limited Rationality and Aggregate Outcomes. 1st LeeX International Conference on Theoretical and Experimental Macroeconomics, Barcelona, Spain.
- Bao, T. (2010, August). Individual Expectations, Limited Rationality and Aggregate Outcomes. Inaugural Conference of the Chinese Game Theory and Experimental Economics Association, Beijing, China.
- Bao, T. (2010, August). Individual Expectations, Limited Rationality and Aggregate Outcomes. Econometric Society World Congress 2010, Shanghai, China.
- Bao, T. (2010, October). Individual Expectations, Limited Rationality and Aggregate Outcomes. Symposium “Experimental Finance 2010”, Gothenburg, Sweden.
- Bao, T. (2010, December). Individual Expectations, Limited Rationality and Aggregate Outcomes. Seminar at Fudan University, Shanghai, China.
- Bao, T. (2010, December). Individual Expectations, Limited Rationality and Aggregate Outcomes. Workshop “Experimental 2010”, Xiamen, China.
- Diks, C.G.H. (2010, 2 April). Information Flows Around the Globe: Predicting Opening Gaps from Overnight Foreign Stock Price Patterns, 18th SNDE annual symposium, Novara, Italy.
- Diks, C.G.H., (2010, 8 November). Constructing and evaluating density forecasts from ensemble forecasts. Workshop on Bayesian methods, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam
- Heijnen, P. (2010, 20 January). A signalling theory of consumer boycotts. University of Groningen. Invited seminar.
- Heijnen, P. (2010, 22 March). Managing the environment and the economy in the presence of hysteresis and irreversibilities. University of Groningen. Invited seminar.

- Heijnen, P. (2010, 16 April). Managing the environment and the economy in the presence of hysteresis and irreversibilities. GAM Workshop. Warwick, England. Contributed paper.
- Heijnen, P. (2010, 29 April). Do auctions and forced divestitures increase competition? Nederlandse Mededingingsautoriteit. Invited seminar.
- Heijnen, P. (2010, 15 May). Screening for collusion: a spatial statistics approach. IIOC 2010. Vancouver, Canada. Contributed paper.
- Heijnen, P. (2010, 25 August). Environmental policy and the macroeconomy under shallow lake dynamics. EEA 2010. Glasgow, Scotland. Contributed paper.
- Hommes, C.H. (2010, 10 February). The heterogeneous expectations hypothesis: some evidence from the lab. Centre d'Economie de la Sorbonne, Paris. Invited seminar.
- Hommes, C.H. (2010, 26 March). The heterogeneous expectations hypothesis: some evidence from the lab. International Research Forum on Monetary Policy, Sixth Conference Federal Reserve Board, Washington, March 26-27, 2010. Invited lecture.
- Hommes, C.H. (2010, 23 April). The heterogeneous expectations hypothesis: some evidence from the lab, NAKE day 2010, Utrecht University, April 23, 2010.
- Hommes, C.H. (2010, 9 June). Individual expectations and aggregate macro behaviour. Workshop Interacting Agents and Nonlinear Dynamics in Macroeconomics, June 9-11 2010, University of Udine, Italy. Invited lecture.
- Hommes, C.H. (2010, 28-29 June). Experimental economics, behavioural economics and heterogeneity of economic and social actors. International School on Multidisciplinary approaches to Economic and Social Complex Systems, 28 June -- 2 July, 2010, Siena, Italy. Four invited lectures.
- Hommes, C.H. (2010, 2 September). Experiments and models of heterogeneous expectations. AMASES conference on Applied Mathematics, September 1-4, 2010, Macerata, Italy. Keynote lecture.
- Hommes, C.H. (2010, 8 September). Some reflections on agent-based models, bounded rationality and heterogeneous expectations, Workshop "Toward an alternative macroeconomic analysis of microfoundations, finance-real economy dynamics and crises", 6-8 September 2010, Central European University, Budapest, Hungary.
- Hommes, C.H. (2010, 8 October). Heterogeneous expectations in agent-based models and Laboratory Experiments. Workshop Experimental Finance 2010, October 7-9, Centre for Finance, University of Gothenburg, Sweden. Keynote lecture.
- Hommes, C.H. (2010, 16 October). A behavioural heterogeneous expectations hypothesis: theory, empirics and experiments. Conference on Quantifying and Understanding Dysfunctions of Markets, October 15-16, University of Leuven, Belgium. Invited lecture.
- Hommes, C.H. (2010, 12 November). Topics in Nonlinear Economic Dynamics: Bounded Rationality, Heterogeneous Expectations and Complex Adaptive Systems. Ph.D.-Workshop Series in Advanced Quantitative Methods in Economics & Finance, 12 November, 2010, St Andrews, UK. Invited lecture.
- Hommes, C.H. (2010, 10 December). Heterogeneous expectations and behavioural rationality: some evidence from the lab. Market Microstructure, Confronting Many Viewpoints Conference, December 6-10, Institut Louis Bachelier, Paris. Invited lecture.
- Kiseleva, T. (2010, June). Bifurcations of optimal vector fields in the shallow lake problem. The 4th World Congress on Environmental and Resource Economics. Montreal, Canada.
- Kiseleva, T. (2010, May). Bifurcations of optimal vector fields. Tutorial. The 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics. Amsterdam, The Netherlands.
- Kiseleva, T. (2010, May). Stochastic indifference points. The 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics. Amsterdam, The Netherlands.

- Koster, M. (2010, 6 July). On voting power and social interaction. S.I.N.G. 6, Palermo, Italy Italy.
- Massaro, D. (2010, 7 May). Heterogeneous Expectations in Monetary DSGE Models. POLHIA workshop. University Politecnica delle Marche. Ancona, Italy.
- Massaro, D. (2010, 12 June). Individual Expectations and Aggregate Macro Behaviour. LeeX International Conference on Theoretical and Experimental Macroeconomics. University Pompeu Fabra. Barcelona, Spain.
- Massaro, D. (2010, 17 July). Individual Expectations and Aggregate Macro Behaviour. 16th International Conference on Computing in Economics and Finance. City University. London, United Kingdom.
- Ochea, M.I. (2010, April, 9-17). Evolution in Iterated Prisoner's Dilemma under Smooth Best-Reply Dynamics. Workshop on "Games and Dynamics ", Warwick University, UK.
- Ochea, M.I. (2010, May 31-June 2). Evolution in Repeated Prisoner's Dilemma. 10th Workshop on Optimal Control, Dynamic Games, CeNDEF, Univ. of Amsterdam, NL.
- Ochea, M.I. (2010, June 12-18.). Evolution in Iterated Prisoner's Dilemma under Smooth Best-Reply Dynamics. Banff Workshop on Evolutionary Games, Banff Center, Canada.
- Ochea, M.I. (2010, June 19-23). On the Stability of the Cournotian Solution: an Evolutionary Approach. 14th Meeting of the International Society of Dynamic Games, Banff, Canada.
- Ochea, M.I. (2010, June 28-July 2). An Evolutionary IEA Game: the Evolution of Abatement Strategies. 4th World Congress of the Environmental and Resource Economists Association, Montreal, Canada.
- Ochea, M.I. (2010, Sept. 15-17). An Evolutionary IEA Game: the Evolution of Abatement Strategies. TECT conference Evolution of Cooperation, Budapest, Hungary
- Tuinstra, J. (2010, 21 January). Expectation formation in financial markets: Laboratory experiments. Seminar University of Leicester, Leicester, United Kingdom. Invited lecture.
- Tuinstra, J. (2010, 13 May). Positive expectations feedback experiments and number guessing games as models of financial markets. Seminar University of Victoria, Canada. Invited lecture.
- Tuinstra, J. (2010, 16 May). Regulatory efficiency requirements for vertical separation. International Industrial Organisation Conference, Vancouver, Canada.
- Tuinstra, J. (2010, 1 June). Positive welfare effects of barriers to entry in a dynamic equilibrium model. 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Amsterdam, The Netherlands.
- Tuinstra, J. (2010, 10 June). Learning, inflation expectations and stability in overlapping generations models: Theory and experiments. Workshop on Interacting Agents and Nonlinear Dynamics in Macroeconomics, University of Udine, Udine, Italy. Invited lecture.
- Tuinstra, J. (2010, 17 July). A multi-round strategy tournament of the minority game: a combined laboratory and internet experiment. The 16th International Conference on Computing in Economics and Finance, London, United Kingdom.
- Tuinstra, J. (2010, 15 November). A multi-round strategy tournament of the minority game: a combined laboratory and internet experiment, University of Innsbruck, Austria. Invited lecture.
- Wagener, F.O.O. (2010, 1 March). Zur ökonomischen Analyse von Umweltkatastrophen. Universität Bielefeld. Invited lecture.
- Wagener, F.O.O. (2010, 11-14 April). Complex evolutionary systems in behavioural finance I, II & III. University of Warwick. Workshop on Dynamics in Games and Economics. Three invited lectures.
- Wagener, F.O.O. (2010, 15 July). Optimal Management with Potential Regime Shifts. 16th Conference on Computing in Economics and Finance, London, England.

- Zhu, M. (2010, 29 November). Consistent Expectations and Learning in Stochastic Economies. KAFEE Lunch Seminar, University of Amsterdam.
- Zhu, M. (2010, 14 October). Monetary Policy, Expectations Consistency and Learning. 4th POLHIA Workshop on Monetary, Fiscal and Structural Policies with Heterogeneous Agents. Leuven, Belgium.
- Zhu, M. (2010, 31 May-2 June). Consistent Expectations and Learning in Stochastic Economies. 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics. Amsterdam, the Netherlands.
- Zhu, M. (2010, 7-8 May). Consistent Expectations and Learning in Stochastic Economies. 3rd POLHIA Workshop on Monetary, Fiscal and Structural Policies with Heterogeneous Agents. Ancona, Italy.

Organisational contributions to conferences, workshops and seminars

- Anufriev, M. (2010). Member of the programme committee of the ESHIA 2010 workshop, organised by the Society for Economic Science with Heterogeneous Interacting Agents.
- Assenza, T. (2010). Co-organiser of the research seminars in Economics, Catholic University of Milan.
- Bao, T. (2010). Organiser of the KAFEE Lunch Seminar series, School of Economics, University of Amsterdam.
- Diks, C.G.H. (2010, 1-2 April). 18th SNDE annual symposium, Novara, Italy
- Diks, C.G.H. (2010, 1 April). Statistische Dag (Annual meeting of the Netherlands Society for Statistics and Operational Research), Vrije Universiteit, Amsterdam
- Diks, C.G.H. (2010). Member organising committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands. May 31 - June 2, 2010.
- Diks, C.G.H. (2010). Member programme committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands. May 31 - June 2, 2010.
- Heijnen, P. (2010). Member organising committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands, May 31 - June 2, 2010.
- Hommes, C.H. (2010). Member programme committee NAKE day, Utrecht University, April 23, 2010.
- Hommes, C.H. (2010). Member programme committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands. May 31 - June 2, 2010.
- Tuinstra, J. (2010). Member organising committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands, May 31 - June 2, 2010.
- Tuinstra, J. (2010). Member programme committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands, May 31 - June 2, 2010.
- Wagener, F.O.O. (2010). Chair organising committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands, May 31 - June 2, 2010.
- Wagener, F.O.O. (2010). Chair programme committee. 11th Workshop on Nonlinear Dynamics, Optimal Control and Dynamic Games. University of Amsterdam, Amsterdam, The Netherlands, May 31 - June 2, 2010.
- Zhu, M. (2010). Co-organiser of weekly seminar series “Economics Colloquia” in University of Amsterdam joint with Tinbergen Institute.

Participation in academic networks & fellowships

- Anufriev, M. (2010). Fellow Tinbergen Institute.
Assenza, T. (2010). Task Force on Systemic Risk financed by Institute for New Economic Thinking (INET) under the guidance of Prof. J. Stiglitz
Bao, T. (2010). Member Econometric Society, European Economic Association.
Diks, C.G.H. (2007-2010). Fellow Tinbergen Instituut.
Diks, C.G.H. (2010). Board member of the Society for Nonlinear Dynamics in Econometrics
Diks, C.G.H. (2010). Board Member (Secretary) of the Netherlands Society for Statistics and Operations Research
Hommes, C.H. (2010). Fellow Tinbergen Institute.
Koster, M. (2010-). S.I.N.G. Representative.
Tuinstra, J. (2010). Fellow Tinbergen Institute.
Tuinstra, J. (2010). Fellow of the Amsterdam Center for Law & Economics (ACLE).
Tuinstra, J. (2010). Fellow of the Economics Network for COmpetition and REgulation (ENCORE).
Wagener, F.O.O. (2010). Fellow Tinbergen Institute.

Editor or member of editorial board

- Diks, C.G.H. (2010). Editorial board member of *Studies in Nonlinear Dynamics in Econometrics*.
Hommes, C.H. (2010), Editor *Journal of Economic Dynamics & Control*.
Hommes, C.H. (2010), Associate Editor *Macroeconomic Dynamics*.
Hommes, C.H. (2010), Associate Editor *Computational Economics*.
Hommes, C.H. (2010), Associate Editor *Journal of Nonlinear Science*.
Hommes, C.H. (2010), Associate Editor *Journal of Economic Behaviour & Organisation*.
Hommes, C.H. (2010), Associate Editor *Journal of Economic Interaction and Coordination*.
Tuinstra, J. (2010). Associate editor *Journal of Economic Dynamics & Control*.

Referee activities

- Anufriev, M. (2010). Referee for *Journal of Economic Dynamics & Control*, *Journal of Evolutionary Economics*, *Eastern Economic Journal*, *Studies in Nonlinear Economic and Dynamics*, *Discrete Dynamics in Nature and Society*.
Assenza, T. (2010). Referee for *Journal of Economic Behaviour & Organisation*, *Journal of Economic Dynamics & Control*, *Economic Inquiry*, *International Economic Review*
Bao, T. (2010). Referee for *Journal of Economic Dynamics and Control*.
Diks, C.G.H. (2010). Referee for *Journal of Asian Business Studies*, *IEEE Transactions on Signal Processing*, *Journal of Economic Dynamics and Control*, *Journal of Empirical Finance*, *Journal of Hydrology*, *Journal of Time Series Analysis*, *New Journal of Physics*, *Quantitative Finance*, *Statistica Neerlandica*, *Statistical Papers*, *Water Resources Research*
Heijnen, P. (2010). Referee for *Journal of Economics*, *Resource and Energy Economics*, *FinanzArchiv*
Hommes, C.H. (2010). Referee for *American Economic Review*, *Energy Economics*, *Experimental Economics*, *Journal of Money, Credit and Banking*, *National Science Foundation (NSF)*, *Netherlands Organisation for Scientific Research (NWO)*.
Koster, M. (2010). Referee for *International Journal of Game Theory*, *European Journal of Operations Research*, *Mathematical Methods of Operations Research*.
Ochea, M. (2010). Referee for *Environmental and Resource Economics*
Tuinstra, J. (2010). Referee for *Agricultural Economics*, *Journal of Economic Behaviour & Organisation*, *Journal of Economic Psychology*, *Journal of Evolutionary Economics*, *Studies in Nonlinear Dynamics and Econometrics*.
Wagener, F.O.O. (2010). Referee for *Applied Mathematics and Computation*, *Ecology and Society*, *International Economic Review*, *Journal of Economic Dynamics & Control*,

Journal of Environmental Management, Journal of Economic Theory, Journal of International Money and Finance, Mathematical Reviews, Natural Resource Modeling, Netherlands Organisation for Scientific Research (NWO), Regular and Chaotic Dynamics.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Anufriev M. (2010). Invited external member of promotion committee of R. Chuhay. Promotor: prof. F. Vega-Redondo. Alicante University.
- Hommes, C.H. (2010), External member of Ph.D. committee of Alexander Subbotin, Promotor: prof. Thierry Chauveau, Ph.D.-thesis *Multiple investment horizons and stock price dynamics*, Centre d'Economie de la Sorbonne Panthéon Sorbonne, February 10, 2010.
- Hommes, C.H. (2010), External member of Ph.D. committee of Pablo Kaltwasser, Promotor: prof. Paul DeGrauwe, Ph.D.-thesis *Heterogeneous expectations in the foreign exchange market*, Katholieke Universiteit Leuven, pre-defense, September 22, 2010.
- Hommes, C.H. (2010), member Expert Review Panel Tobin Tax, for Institute of Development Studies, Sussex, UK.
- Koster, M. (2010, March). Invited external member promotion committee of S. Baumann. Promotor Prof. F. Valogne, Cerene, Université du Havre.

Grants, prizes and honours

- Bao, T. (2010, August). Econometric Society World Congress Travel Grant, 1000 USD.
- Diks, C.G.H. and Hommes, C.H. NWO-Complexity grant *Understanding financial instability through complex systems* (jointly with DNB; €440K).
- Hommes, C.H. (2010), Visiting Professor Université Paris 1 Panthéon Sorbonne, February 2010.

CHAPTER 8: ACTUARIAL SCIENCE

Programme director: Prof.dr.ir. M.H. Vellekoop
Department: Quantitative Economics
METIS code: uva/fee/res/act/prog
JEL-classification: C, G2
Starting date programme: 1989
VSNU-scores 2001-2007: Quality: 4, Productivity: 4, Relevance: 5, Viability: 3.5

8.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Funcio n</i>	<i>Tota l 2007</i>	<i>Tota l 2008</i>	<i>Tota l 2009</i>	<i>Tota l 2010</i>	<i>Dept</i>	<i>Fundin g</i>
Antonio, K.	dr	ud	0,12	0,50	0,50	0,60	KE	1
Cao, J.	msc	Ph.D.	0,36	0,36	0,3	-	KE	3
Chen, A.	dr	postdoc	0,8	0,53	-	-	KE	3
Cui, J.	dr	ud	-	-	0,05	0,20	KE	1
Dhaene, J.	prof dr	hgl	0,00	0,00	0,00	0,00	KE	3
Goovaerts, M.J.	prof dr	bijz. hgl	0,21	0,21	0,21	0,21	KE	3
Haastrecht, A. van	drs	Ph.D.	0,12	0,60	0,20	0,10	KE	1
Janssen, M.J.J.	drs	Ph.D.	0,15	0,20	0,20	0,20	KE	3
Joseph, A.S.	drs	Ph.D.	0,15	0,10	0,20	0,20	KE	3
Kaas, R.	prof dr	hgl	0,50	0,50	0,50	0,40	KE	1
Kaas, R.	prof dr	hgl	0,10	0,10	-	-	KE	3
Kuné, J.B.	prof dr	hgl	0,15	0,15	0,15	0,00	KE	1
Pelsser, A.J.	prof dr	hgl	0,20	0,20	0,10	-	KE	3
Pelsser, A.J.	prof dr	hgl	0,50	0,50	0,25	-	KE	1
Plat, H.J.	drs	Ph.D.	0,15	0,20	0,20	0,20	KE	3
Ronner, A.E.	prof dr	hgl	0,03	0,10	0,10	0,10	KE	3
Rijckevorsel, J.L.A.	prof dr	hgl	0,05	0,20	0,20	0,20	KE	3
Tamerus, J.H.	drs	oz	0,00	0,00	0,00	0,00	KE	1
Vellekoop, M.	prof dr	hgl	-	-	0,13	0,40	KE	1
Willemse, W.J.	dr	ud	0,21	0,21	0,21	0,15	KE	1
Wolthuis, H.	prof dr	hgl	0,06	-	-	-	KE	1
Total 1st flow of funds			1,66	2,46	1,99	1,85		
Total 2nd flow of funds			0,00	0,00	0,00	0,00		
Total 3rd flow of funds			2,20	2,20	1,51	1,11		
Total 1st f.o.f. excl. Ph.D.'s			1,09	1,36	1,79	1,75		
Total 1st-3rd flow of funds			3,86	4,66	3,50	2,96		
Ph.D. students			0,93	1,46	1,10	0,70		

8.2 PROGRAMME DESIGN

The programme concerns both fundamental and applied research in the field of financial institutions. It is mainly directed at insurance companies (for life, non-life, pension and social insurance), but also at banks and other financial intermediaries. Research is performed on the mathematical modeling, estimation, appraisal and control of financial risks of such financial institutions under complete and incomplete information and for complete and incomplete

markets. For long term insurance contracts, especially pensions, saving by insurance is significant, which leads to the study of optimal investment and consumption problems. An increasingly important aspect is the influence of the "risk of longevity" on the policies of life insurance, social insurance and care insurance. Newly reported statistics show that life expectancy continues to rise faster than predicted both in the Netherlands and abroad, and the modeling of this effect and its consequences for life insurance policies and pension contracts therefore remains an important area of investigation. Present-day challenges for non-life insurance contracts include decreasing profit margins, increasing competition and selective behaviour of the insured and of insurance companies. In social insurance, there are specific problems that emerge from the privatisation of social insurance contracts. Apart from studying problems in the separate fields of life, non-life, pension and social insurance, work is also done on the theoretical research subject which concerns the unification of several distinct actuarial theories in these fields, and their connection with stochastic financial mathematics.

Supervision and regulation of insurance companies and pension funds form an important part of the field of actuarial research. Methods for risk measurement and the determination of solvency requirements have come under intensified scrutiny in the wake of the recent financial crisis. The new European regulatory framework Solvency II for insurers and the Dutch FTK regulation for pension funds lead to many important new research questions. The Actuarial Science group therefore works on the further development of actuarial risk theory, in particular the development of new mathematical and economic models in the fields of market-consistent valuation, market-consistent pricing and market-consistent embedded value for insurance portfolios.

Other significant fields of research are the interaction between credibility theory, models for the estimation of unreported claims (IBNR) and actuarial ordering of risks, and their consequences for the determination of insurance premiums (risk classification). Credibility models can be viewed as Generalized Linear Mixed Models, having both random (subject-specific) and fixed effects in the linear predictor. Generalized Linear Models and Generalized Linear Mixed Models can be used for a variety of actuarial statistical problems like survival modelling, graduation, multiple-state models, loss distributions, risk classification, premium rating and claims reserving in non-life-insurance. Other aspects are the homogeneity and heterogeneity of insurance portfolios, the probabilistic and subsidising solidarity imposed on the insured, the voluntary or compulsory character of the insurance, and the auto-selection and anti-selection of those insured.

8.3 PROGRAMME EVALUATION

Publications in 2010 by the group in the academic literature were often connected to topical issues that sparked a lot of interest in the actuarial community. These include for example results in risk measurement and management for insurance companies, and contract redesign for pension plans. Research concerning the last issue provides valuable scientific input for the fierce debate on the future of the Dutch pension system and the question whether the pension rights that have been promised in the past need to be altered to retain a viable system. Our publications in the professional press on new challenges in portfolio management with unhedgeable risks (by Michiel Janssen) , on guarantees in pension contracts (by Jan Tamerus and Jan Kuné) and on the possibility to introduce a 'pension label' (by Agnes Joseph) show that the group continues to be very visible in the policy debates on these issues.

This year research in the Netspar theme 'Reconciling Short Term Risks and Long Term Goals for Retirement Provisions' mainly concerned the Dutch pension funds' and insurance companies' reaction to the financial crisis. This research theme, which is coordinated from the Actuarial Science group, is a joint effort with the universities of Twente, Tilburg and Cyprus

and industrial partners from the Netspar network. This year the first theme conference was organised on a topic that got increasing attention in 2010: solvency capital regulation for insurance companies. The new implementation study for the European regulatory framework Solvency II, the so-called quantitative impact study number five QIS5, took place in the autumn of 2010 and the conference provided a good opportunity to discuss its consequences. Speakers from the the academic world, from industrial practice and from the Dutch regulator (the Dutch Central Bank, DNB) commented from various perspectives on the important actuarial issues raised by the new impact study, such as the illiquidity premium calculations for insurers' liabilities.

But other topics that are part of the Netspar theme were the subject of increased attention too in this year. New Dutch mortality data showed a sharp increase in the life expectancy for the Netherlands, which has led to a vigorous debate about the sustainability of the Dutch pension system. In preparation of a joint paper on the creation of capital market solutions for longevity risk, two study groups were organised within Netspar to get feedback from practitioners for the academic community. For the same paper, a large survey for all Dutch pension funds was organised from within our group, to gather more information on the perception of longevity risk by the funds.

In a related research project on financial market solutions for risk mitigation in pension funds, we study the effect of the incorporation of derivatives in the optimization routines for asset and liability management. We have focused on ALM models that take not only stochastic volatility but also stochastic correlation between equity and fixed income products into account, since the funding ratio may be very sensitive with respect to changes in that correlation. Although some models have been proposed for optimal investment under stochastic correlation with optimal strategies that can be calculated explicitly, the correlation dynamics are often rather complicated. We are currently trying to design more intuitive models that are easier to interpret and therefore of more possible value for practitioners. A research grant of C\$ 58.000,- has been awarded this year to Vellekoop and Cui by the Rotman International Centre for Pension Management (ICPM) for this research project, which is executed in close cooperation with Bart Oldenkamp from Cardano.

The research on risk measures in the group is done in close collaboration with colleagues from other academic institutions in the Netherlands and internationally. The cooperation with colleagues from Tilburg and from the KU Leuven (in the large GOA Project called "Actuarial, financial and statistical aspects of dependencies in insurance and financial portfolios") has led to a collection of papers this year on risk measures to support decisions in insurance and finance. In these papers it is argued that a distinction exists between risk measures and decision principles. Though both are functionals that assign a real number to a random variable, there is a hierarchy between the two concepts. Risk measures operate on the first "level", quantifying the risk in the situation under consideration, while decision principles operate on the second "level", often being derived from the risk measure. It is expected that the new results will help to solve the problem of finding the best possible upper bounds on a rich class of risk measures under incomplete probabilistic information. Further cooperation with colleagues in Belgium takes place around the textbook *Modern Actuarial Risk Theory* book that is in use at many universities, in The Netherlands and abroad.

Research by Katrien Antonio in the VENI project, about claims reserving techniques for non-life insurance products, has led to a publication in *ASTIN Bulletin* with coauthors from the University of Wisconsin in Madison and the University of Connecticut. Using a large dataset with automobile insurance claims, the intercompany experience is analysed using multilevel methods, which leads to conclusions on the effects of company-specific practice on claims experience after controlling for vehicle and fleet effects.

Our cooperation closer to home with researchers from other departments and faculties of the University of Amsterdam continues in the Amsterdam Center for Insurance Studies (ACIS), a joint initiative of the Dept of Actuarial Science and the Faculty of Law, which is funded by the Dutch Association of Insurers (“Verbond van Verzekeraars”). In 2010 it has been decided to add ‘Actuarial Science’ as a sixth research programme in the Centre to the existing five; Vellekoop will act as coordinator of this programme. Our group also played an important role in the organisation of important international actuarial conferences such as the ICCAM conference at the KU Leuven in July, the conference at the University of the Aegean (Samos) in June, and the Insurance Mathematics & Economics (IME) congress in Toronto in June.

The 2009 Research Review for Economics and Business Sciences by QANU gave the following assessment marks for the Actuarial Science group: 4 for Quality, 4 for Productivity, 5 for Relevance and 3.5 for Viability. The committee stated that the group produces high-quality research in the specific field of actuarial science, which emphasizes the mathematical and probabilistic aspects of the subject. It praised the active interaction with the actuarial profession, which guarantees the relevance of the subjects treated in research, and the high productivity of the group. The committee expressed some concern on the number of Ph.D. theses and the fact that research relies to a large extent on external funding. The group actively addresses these issues with the Netspar research project and new Ph.D. positions.

In the wake of the financial crisis, the field of actuarial science is faced by some new challenges and a shifting emphasis in research agendas. The group’s work on financial economic valuation and risk management techniques is, in the words of the QANU committee, at the frontier between finance, economics and applied mathematics. Our research will thus continue to be very relevant, both for the development of actuarial theory of the highest academic standard and for the design of practical methods for actuarial professionals who are confronted by challenging new questions.

8.4 RESOURCES AND FUNDING

Below are several Research grants awarded to members of the group:

10/2009 – 09/2012. Netspar theme grant: Reconciling Short Term Risks and Long Term Goals for Retirement Provisions, theme coordinator: Michel Vellekoop, €500.000.

10/2009 – 10/2010. Rotman International Centre for Pension Management (ICPM) research grant:

"When do derivatives add value in asset allocation problems for pension funds?". Coordinators: Michel Vellekoop & Jiajia Cui, C\$ 58.000,-

10/2006 – 09/2011. Concerted Research Action of the K.U.Leuven Research Fund, Project G.O.A./2007/, Risk modeling and valuation of insurance and financial cash flows, with applications to pricing, provisioning and solvency, promoter: Marc Goovaerts, co-promoter: Jan Dhaene. € 60 000 per year.

10/2006 – 9/2011. Fortis Chair on Financial and Actuarial Risk Management, Fortis Central Risk Management, chairholder (with Marc Goovaerts and Steven Vanduffel).

11/2009 – 11/2012. VENI grant (NWO Vernieuwingsimpuls/Innovational Research Incentives Scheme) ‘Non-life: A Life Insurance Approach’, dr. Katrien Antonio, €250.000.

8.5 OUTPUT

Key publications

- Antonio, K., Frees, E.W. & Valdez, E.A. (2010). A multilevel analysis of intercompany claim counts. *ASTIN Bulletin*, 40(1), 151-177.
- Kaas, R., Goovaerts, M.J., Dhaene, J. & Denuit, M. (2008). Modern actuarial risk theory — Using R. 2nd edition. Springer.
- Kaas, R. R.J.A. Laeven, R.B. Nelsen, (2009). Worst VaR scenarios with given marginals and measures of association, *Insurance: Mathematics and Economics*, 44.2, pp. 146-158.
- Schrager, D. & Pelsser, A. (2006). Pricing Swaptions and Coupon Bond Options in Affine Term Structure Models. *Mathematical Finance*, 16 (4), pp. 673-694.
- Van Haastrecht, A. & Lord, R. & Pelsser, A. & Schrager, D. (2009). Pricing long-dated insurance contracts with stochastic interest rates and stochastic volatility. *Insurance: Mathematics and Economics*, 45, pp. 436-448.

Forthcoming

- Cui, J., De Jong, F. & Ponds, E. (2010). Intergenerational risk sharing within funded pension schemes. *The Journal of Pension Economics and Finance*, accepted for publication.
- Van Weert, K., Dhaene, J.L.M. & Goovaerts, M.J.J. (2010). Comonotonic approximations for a generalized provisioning problem with application to optimal portfolio selection. *Journal of Computational and Applied Mathematics*, accepted for publication.
- Van Weert, K., Dhaene, J.L.M. & Goovaerts, M.J.J. (2010). Comonotonic approximations for the probability of lifetime ruin. *Journal of Pension Economics and Finance*, accepted for publication.

Publications in numbers

<i>Actuarial Science</i>				2010
1) Academic publications	a)in refereed journals	A	5	
		B	1	
		Other	1	7
	b) in other journals		2	2
		c) book chapters	A	1
	B		0	
	Other		1	2
	d) proceedings		0	0
		Total		
	2) Books		0	0
3) Ph.D. theses		1	1	
4) Professional publications		12	12	
5) Popular publications		0	0	
6) Working papers		6	6	
Total				30

Dissertations

- Van Haastrecht, A. (2010, 8 juli) [promotor prof.dr. A. Pelsser][cat. I]

Academic publications (excluding publications in/of books) – refereed

A

- Goovaerts, M.J.J., Kaas, R. & Laeven, R. (2010). A note on additive risk measures in rank-dependent utility. *Insurance: Mathematics and Economics*, 47, (2), 187-189.
- Goovaerts, M.J.J., Kaas, R. & Laeven, R. (2010). Decision principles derived from risk measures. *Insurance: Mathematics and Economics*, 47, (3), 294-302.
- Minina, V. and Vellekoop, M.H. (2010), A risk reserve model for hedging in incomplete markets. *Journal of Economic Dynamics and Control*, 34(7), 1233-1247.
- Van Weert, K., Dhaene, J.L.M. & Goovaerts, M.J.J. (2010). Optimal portfolio selection for general provisioning and terminal wealth problems. *Insurance: Mathematics and Economics*, 47(1), 90-97.
- Van Haastrecht, A., Plat, R. and Pelsser, A. (2010). Valuation of guaranteed annuity options using a stochastic volatility model for equity prices. *Insurance: Mathematics and Economics*, 47(3), 266-277.

B

- Antonio, K., Frees, E.W. & Valdez, E.A. (2010). A multilevel analysis of intercompany claim counts. *ASTIN Bulletin*, 40(1), 151-177.

Other

- Van Haastrecht, A. and A. Pelsser (2010). Efficient, Almost Exact Simulation of the Heston Stochastic Volatility Model. *International Journal of Theoretical and Applied Finance*, Volume 13, Issue 1, 1-43.

Academic publications (in/of books) – refereed

A

- Vellekoop, M.H. (2010). Forwards and Futures. In: Cont, R. (ed), *Wiley Encyclopedia of Quantitative Finance*, John Wiley & Sons.

Academic publications (working- and discussion papers)

- Antonio, K., Guillén, M. & Perez-Marin, A.M. (2010). Multidimensional credibility: a Bayesian analysis of policyholders holding multiple policies. Working paper. Universiteit van Amsterdam.
- Antonio, K. & Plat, H.J. (2010). Micro-level stochastic loss reserving for general insurance. Working Paper. Universiteit van Amsterdam.
- Antonio, K. & Valdez, E.A. (2010). Statistical concepts of a priori and a posteriori risk classification. Working Paper. Universiteit van Amsterdam. Accepted for publication in *AStA Advances in Statistical Analysis*, special issue on Insurance Statistics.
- Janssen, M.J.J. (2010), Portfolio Optimisation with a Value at Risk constraint in the presence of unhedgeable risks. Working Paper (submitted to IME)
- Tomas, J (2010) Graduation of Mortality by Local Polynomial Regression. Working Paper. Universiteit van Amsterdam.
- Tomas, J (2010) A Local Likelihood Approach to Graduation of Mortality. Working Paper. Universiteit van Amsterdam.

Academic publications (excluding publications in/of books) – non-refereed

- Joseph, A. (2010). Het Pensioenlabel als basis voor toezicht, *Netspar NEA paper* 37, november 2010.
- Boeijen, D., Kortleve, C.E. en Tamerus, J. (2010) Van toezegging naar ambitie, Een betaalbaar reëel pensioen dat eerlijk is over de risico's en aanpasbaar voor exogene ontwikkelingen, *Netspar NEA-paper* 35, juni 2010.

Academic publications (in/of books) – non-refereed

Tamerus, J. (2010) Willen en kunnen zijn twee, In: Flip Klopper, Carel Petersen en Benne van Popta (redactie) De toekomst van ons pensioenstelsel, Pensioen Bestuur & Management Dossierreeks nr.5, 2010.

Professional publications

- Antonio, K. & Plat, H.J. (2010). A micro-model for IBNR and RBNS loss reserving. *De Actuaris*, August 2010, 26-27.
- Antonio, K. & Dannenburg, D. (2010). Credibiliteit 2.0. *De Actuaris*, Mei 2010, 32-35.
- Boeijen, T.A., Kortleve, C.E. and Tamerus, J.H. (2010) Pensioengaranties: wat koopt de deelnemer daarvoor?, *Pensioenmagazine*, 15de jaargang, oktober 2010, nummer 10.
- Boeijen, T.A., Kortleve, C.E. and Tamerus, J.H. (2010) Hoe houden we de reële ambitie vol? *Pensioenmagazine*, 15de jaargang, december 2010, nummer 12.
- Cui, J., & Ponds, E. (2010), Can Internal Swap Markets Enhance Welfare in Defined Contribution Plans? *Rotman International Journal of Pension Management*, Vol. 3, No. 2, 2010
- Joseph, A. (2010). Nieuwe ALM methodes, *Investments & Pensions*, maart 2010
- Joseph, A. (2010). Invloed van toezicht op pensioenbeleid, *De Actuaris*, maart 2010
- Joseph, A. (2010). Het Pensioenlabel als basis voor toezicht, *Pensioen Bestuur & Management* juni 2010.
- Joseph, A. (2010). Energielabel als basis voor Pensioentoezicht, *Nederlands Pensioen & Beleggingsnieuws*, december 2010.
- Kuné, J. (2010) Bouwstenen voor een nieuw pensioencontract, *Pensioen Bestuur & Management*, 7, 2010, pp. 37-40
- Kuné, J. (2010) Omzien in verwondering: Zorgen over Morgen, *Pensioen-Magazine*, 14, november 2010, pp. 32-35
- Van Dam, R. Tamerus, J. and Valkenburg, F. (2010) De toekomstbestendigheid van het pensioencontract en pensioenfondsen, Drieluik pensioenfondsen. *De Actuaris*, jaargang 17, nummer 6, juli 2010.

Contributions to academic conferences, workshops and seminars

- Antonio, K. (2010, 16 September). A micro-model for IBNR and RBNS loss reserving. Technical University of Lisbon, Lisbon (Portugal). Invited seminar.
- Antonio, K. (2010, 10 May). A micro-model for IBNR and RBNS loss reserving. University of Amsterdam, KAFEE Lunch Seminar. Invited seminar.
- Antonio, K. (2010, 14 April). A micro-model for IBNR and RBNS loss reserving. University of Oldenburg, Mathematical Institute, Oldenburg (Germany). Invited seminar.
- Antonio, K. (2010, 4 February). A hierarchical model for micro-level stochastic loss reserving. Actuarial and Financial Mathematics Conference, Brussels (Belgium). Contributed lecture.
- Goovaerts, M.J.J.(2010). 6th Conference in Actuarial Science & Finance in Samos, Karlovassi, Greece, June 3-6, 2010. Contributed talk.
- Janssen, M.J.J. (2010, July 2nd), Portfolio Optimisation with a Value at Risk Constraint in the Presence of Unhedgeable Risks, 6th Finance Conference Portuguese Finance Network, Presenter.
- Janssen, M.J.J. (2010, July 2nd), Dynamic Consumption and Portfolio Choice with Ambiguity about Stochastic Volatility, 6th Finance Conference Portuguese Finance Network, Discussant.
- Plat, R. (2010, Dec 8) Introductie in (modellen voor) langlevensrisico, VSAE Actuarialcongres, invited talk.

- Vellekoop, M.H. (2010, October 27) Sahara Utility and Optimal Investment and Consumption, Rijksuniversiteit Groningen, Invited Seminar.
- Vellekoop, M.H. (2010, September 27) Sahara Utility and Optimal Investment, Workshop University of Udine, Invited Seminar.
- Vellekoop, M.H. (2010, September) Sahara Utility and Optimal Investment, Vrije Univesiteit, Invited Seminar.
- Vellekoop, M.H. (2010, June) Sahara Utility and Optimal Investment, University of Twente, Invited Seminar.
- Vellekoop, M.H. (2010, June) Sahara Utility and Optimal Investment, Bachelier Conference 2010, Toronto, contributed talk.
- Vellekoop, M.H. (2010, June) Sahara Utility and Optimal Investment. Insurance: Mathematics and Economics Conference, Toronto, contributed talk.
- Vellekoop, M.H. (2010, June) Sahara Utility and Optimal Investment, Netspar Pension Workshop, Zurich, contributed talk.
- Vellekoop, M.H. (2010, April 13), The Early Exercise Boundary for American Options on Dividend-paying Assets, Workshop on Stochastics, Control and Finance, London, contributed talk.
- Vellekoop, M.H. (2010, February), Early Exercise Premia for Assets with Dividends, MathFinance Conference 2010, Frankfurt, invited talk.
- Vellekoop, M.H. (2010, February), Robustness in Optimal Investment: Moral Hazard & Terminating Income, CERMICS, Paris, invited seminar.

Other lectures on research

- Joseph, A. (2010, Aug 26). Van doelstelling naar beleid, IIR conference: Nationaal Platform voor Institutionele Beleggers
- Joseph, A. (2010, Sept 9-10). Risico's bij Beleggingen & Stress-testing, Summer School Actuariel Genootschap
- Joseph, A. (2010, Oct 5). Risico's bij Beleggingen, Permanente educatie Actuariel Genootschap.
- Joseph, A. (2010, Dec 1). Pensioenlabel. NPN conference: Nederlandse Pensioen Top 2010.
- Joseph, A. (2010, Dec 10). Pension Board Flight Simulator. SEFA conference on Trust.
- Vellekoop, M.H. (2010, March) A tree-based method to price American Options in the Heston Model, PREMIA Meeting, Paris, invited lecture.

Organisational contributions to conferences, workshops and seminars

- Goovaerts, M.J.J.(2010). 6th Conference in Actuarial Science & Finance in Samos, Karlovassi, Greece, June 3-6, 2010. Member scientific committee + Contributed talk.
- Goovaerts, M.J.J.(2010). 14th International Congress on Insurance: Mathematics & Economics, Toronto, Canada, June 17-19, 2010. Member scientific committee.
- Goovaerts, M.J.J.(2010). 15th International Congress on Computational and Applied Mathematics (ICCAM), Leuven, Belgium, July 5-9, 2010. Conference director.
- Kaas, R (2010). 14th International Congress on Insurance: Mathematics & Economics, Toronto, Canada, June 17-19, 2010. Member scientific committee.
- Kaas, R (2010). AFMATH Conference 2010, Brussels, Belgium, Feb 4-5, 2010. Member scientific committee.
- Vellekoop, M.H. (2010). Netspar Theme Conference “Solvency Requirements for Insurance Companies”, Amsterdam, November 24. Conference organisator.

Participation in academic networks & fellowships

- Van Haastrecht, A., Research Fellow, Netspar
- Vellekoop, M.H., Research Fellow, Netspar

Editor or member of editorial board

Goovaerts, M.J. (2010) Editor *Insurance, Mathematics & Economics*

Goovaerts, M.J. (2010) Editor *Journal of Computational and Applied Mathematics*

Kaas, R.. (2010) Managing Editor *Insurance, Mathematics & Economics*

Referee activities

Antonio, K. (2010). Referee for *Insurance: Mathematics and Economics, ASTIN Bulletin: The Journal of the International Actuarial Association, Annals of Actuarial Science, North American Actuarial Journal*.

Janssen, M.J.J. (2010) Referee for *ASTIN bulletin*.

Cui, J. (2010). Referee for *Journal of Risk and Insurance*.

Vellekoop, M.H. (2010) Referee for *Applied Mathematical Finance, International Journal of Theoretical and Applied Finance*.

Membership of academic committees (including Ph.D. committees outside the FEB)

Antonio, K. (2010, December). Member promotion committee of Florence Guillaume.
Promotor: prof. Wim Schoutens. Katholieke Universiteit Leuven.

Goovaerts, M.J. (2010). Promotor of Slimane Grine. Katholieke Universiteit Leuven.

Goovaerts, M.J. (2010). Promotor of Zhaoning Shang. Katholieke Universiteit Leuven.

Vellekoop, M.H. (2010, May) Member promotion committee of Vincent Leijendekker.
Promotor: prof. Michel Mandjes, Faculty of Science, University of Amsterdam.

Various activities

Vellekoop, M.H. (2004-) Director of Research for the Derivatives Technology Foundation,
Amsterdam

Willemse, W.J. (2010) Observing member of Commissie Overlevingstafels of the Actuarial
Association.

CHAPTER 9: OTHER RESEARCH QUANTITATIVE ECONOMICS

<i>Subprogrammes:</i>	<i>Business and Industrial Statistics (IBIS)</i>
<i>Subprogramme's director</i>	<i>Prof.dr. R.J.M.M. Does</i>
<i>Website:</i>	<i>www.ibisuva.nl</i>
<i>Department:</i>	<i>Quantitative Economics</i>
<i>METIS-code:</i>	<i>uva/fee/res/orq/prog</i>
<i>Starting date programme:</i>	<i>1994</i>
<i>VSNU-scores 2003-2008</i>	<i>(Mathematics): Quality: 4, Productivity: 4, Relevance: 5, Viability: 4</i>

9.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 1</i>	<i>Total 2</i>	<i>Total 3</i>	<i>Total 4</i>	<i>Dept.</i>	<i>Funding</i>
<i>Subprogramme IBIS</i>								
Bisgaard, S.	prof dr	hgl	-	-	0,10	-	KE	3
Does, R.J.M.M.	prof dr	hgl	-	-	0,30	0,30	IBIS	3
Does, R.J.M.M.	prof dr	hgl	-	-	0,10	0,10	KE	1
Erdmann, T.P.	drs	Ph.D.	-	-	0,50	0,50	IBIS	3
Lokkerbol, J.	drs.	Ph.D.	-	-	-	0,40	IBIS KE/IBI	3
Mast, J. de	dr	uhd	-	-	0,40	0,40	S	3
Kemper, B.P.H.	drs	Ph.D.	-	-	0,50	0,50	IBIS	3
Schoonhoven, M.	drs	Ph.D.	-	-	0,50	0,50	IBIS	3
Total 1st flow of funds			0,00	0,00	0,10			
Total 2nd flow of funds			0,00	0,00	0,00			
Total 3rd flow of funds			0,00	0,00	2,30			
Total 1st f.o.f. excl. Ph.D.'s			0,00	0,00	0,40			
Total 1st-3rd flow of funds			0,00	0,00	2,40			
Ph.D. students			0,00	0,00	1,50			

9.2 PROGRAMME DESIGN

All members of the institute, except for Prof.dr. R.J.M.M. Does, are full-time employed at the Institute for Business and Industrial Statistics (IBIS UvA). IBIS UvA is an independent consulting firm, owned by the University of Amsterdam. The institute is organisationally affiliated to the department of Quantitative Economics. The interaction of scientific research on the one hand, and its application in the service of IBIS UvA's clients on the other, is seen as the crux of the institute.

In December 2009, Prof.dr. S. Bisgaard died after a lost fight against cancer. His position will become available in 2011.

Context and mission

In the early twentieth century, industry has been one of the cradles of the discipline of statistics. The original application context of industrial statistics has been quality control, but a modern notion of the field would include operations management, process management, and product design as well.

Typical application areas such as product and process development, quality and efficiency improvement, reliability and safety engineering, and surveillance and monitoring of complex systems, entail applied empirical research and statistical decision making. Business and industrial statistics aims to develop rational prescriptions for such applications, including techniques, methods, and principles.

Research methods / traditions

The fact that methods and techniques are the deliverables of the research programme places business and industrial statistics in the category of methodological sciences, such as statistics and methods research (psychometrics, econometrics), design research (engineering, architecture), and action research (substantial parts of business administration and management science). Whereas logical correctness is the criterion for the products of formal sciences such as mathematics, and reproducibility is the criterion in empirical sciences, the criteria for the output of business and industrial statistics are usefulness and effectiveness.

Business and industrial statistics make frequent use of results and theories from a multitude of scientific disciplines, such as mathematics and mathematical statistics, engineering, and business-economics.

Dissemination and value realisation

The consulting work of IBIS UvA, focusing on healthcare, financial services and the high-tech industry, provides both an empirical basis for the research, as well as an outlet allowing the research results to be of direct value to society. IBIS UvA is also a founding member of the Dommel Valley Platform, a collaborative initiative of the high-tech industry in Eindhoven Region aiming to gather, develop and disseminate knowledge on techniques for product development and reliability management.

IBIS UvA has participated substantially in professional networks such as the American Society for Quality (ASQ), the International Society for Business and Industrial Statistics (ISBIS), and the European Network for Business and Industrial Statistics (ENBIS). All offer ample opportunities for promoting new methods and techniques to practitioners.

Technometrics is a highly regarded journal on statistical methods in the physical, chemical and engineering sciences. The Journal of Quality Technology is also a highly regarded journal in industrial statistics and publishes papers on methods for quality improvement and control. The Quality Management Journal and the International Journal of Quality and Reliability Management are well-respected outlets for papers on predominantly qualitative techniques for quality improvement. Other international journals include Quality and Reliability Engineering International and Applied Stochastic Models for Business and Industry. It is gratifying to note that Technometrics and JQT are qualified as A-journals and IJQRM, QMJ, QREI and AMSBI as B-level journals.

In future years, the institute aims to publish more papers in the operations management and the management of healthcare literatures.

Research themes

1. Statistical process control and control charting methodology

Statistical process control (SPC) offers methods for detecting when a system transits from a normal state to a disturbed state (named out-of-control). Methodology for SPC in the manufacturing industry has, in the previous two decades, reached a mature stage. Attention is now shifting to control chart methods for robust monitoring and for detecting small shifts in the parameters. Such applications require an integration of SPC with robust statistics and adding additional runs rules to the control charts.

In the previous years, this research theme has resulted in 5 Ph.D. dissertations. Currently, 4 persons work on Ph.D. projects. Three of them are from Pakistan. Does and Schoonhoven participate in this research theme.

2. Commercially available improvement methodologies

Industry and consulting firms develop methodologies for process, quality and efficiency improvement, some of which are applied on an extremely wide scale. Examples include Six Sigma, Lean Manufacturing, Business Process Reengineering, and Statistical Process Control. A critical and scientific study of these commercially offered methodologies aims to assess their merits, and where possible suggest improvements.

So far, the research theme has resulted in 3 Ph.D. dissertations and 1 current Ph.D. projects. De Mast, Does and Lokkerbol participate in this research theme.

3. Measurement system analysis

The precision of measurement devices in the engineering and physical disciplines, as well as the reliability of medical diagnoses and psychometrical instruments and tests, and finally, the legal implications of metrology, are topics with substantial impact. All three topics struggle with fundamental and practical hiatuses in insight, for which it is plausible that industrial statistics can make contributions and possibly even induce breakthroughs. Among the objectives for the next 10 years, is the challenge to improve the industrial standard for measurement systems analysis (as laid down in AIAG, 2002), and to improve the international legal standard for modeling measurement precision (as specified in ISO, 1995).

The research theme has resulted in the previous years in 1 Ph.D. dissertation and 1 current Ph.D. project. De Mast and Erdmann participate in this research theme.

4. Exploratory data analysis and problem-solving

Both in statistics and in research methodology for empirical inquiry, understanding of hypothesis generation (or: discovery) lags far behind understanding of hypothesis-testing and modeling (or: justification). One of the probable causes is the intrinsically multi-disciplinary nature of the topic. The research theme has so far focused on the development of a framework for teaching exploratory data analysis, and has resulted in 1 current Ph.D. project. De Mast and Lokkerbol participate in this research theme.

5. Healthcare engineering

Pressure on healthcare to improve quality, efficiency and safety is high. The research theme Healthcare Engineering aims to make applicable in healthcare the kind of techniques used for process improvement and control in industry. The consultancy activities of IBIS UvA, as well as the excellent network of contacts in healthcare, provide a good empirical basis for the research, and ample opportunities to test methods in practice.

The research theme has resulted in 1 Ph.D. dissertation and 2 current Ph.D. projects. De Mast, Does, Niemeijer (UMCG) and Kemper participate in this research theme.

9.3 PROGRAMME EVALUATION

Strengths: The consulting activities of IBIS offer opportunities for cross-fertilization that are recognised internationally as unique. Further, members of the institute have in recent years made substantial investments in building an international network, which has begun to bear fruit.

Inspired by identified needs in the consulting practice, the research in recent years has been daring in taking up research topics beyond well-trodden paths, and which include ill-structured problems that do not fall in an established research framework. The international appreciation for the research contributions of the institute is attested by the various prizes and prestigious positions awarded to members of the institute.

Weaknesses: The institute takes identified problems in the field as point of departure for research, instead of departing from a specific research method and searching for a matching application. As a consequence, it is sometimes difficult to find a suitable outlet for the research, which may fail to fit in the research templates prescribed by established journals.

The size of the group, especially the capacity at senior level, is small.

Opportunities: The transfer of the institute from the Faculty of Science to the FEB is decisively felt as a good initiative. The nature of research done at the institute fits better in the variety of research traditions found in the FEB than in the paradigm of formal science which dominates the KdV Institute for Mathematics. The business school provides new potential outlets for our knowledge, notably, courses for students and perhaps courses for executives.

The commercial exploitation of our knowledge results in 2010, at an all times' high, with the healthcare community, the service industries, and the high-tech world all highly interested in buying our expertise. Especially the public trainings offered by IBIS UvA were extremely successful in 2010.

Threats: Consulting activities reduce effective research time for the senior members of the institute to about 0.2 or 0.3 fte. Although an efficient way of working has proved to enable substantial accomplishments in limited time, time budgets are a concern.

Although the institute has been quite successful in attracting Ph.D. students of high potential, the institute has been unsuccessful in keeping them after their promotion.

9.4 RESOURCES AND FUNDING

Prof. Does' full professor position at the FEB is partially (0.2 fte) paid for by funds of the 1st flow. All other positions are paid for by funds of the 3rd flow. Dr. De Mast has a 0.2 fte position as UHD, which is paid for from the dividend of IBIS. The other personnel costs are directly paid by IBIS.

9.5 OUTPUT

Key publications

Does, R.J.M.M., Vermaat, M.B., Verver, J.P.S., Van den Heuvel, J., Bisgaard, S. (2009). Reducing start time delays in operating rooms. *Journal of Quality Technology*, 41(1) 95–109.

Other Research
Quantitative Economics

Mast, J. de, Trip, A. (2007). Exploratory data analysis in quality improvement projects. *Journal of Quality Technology*, 39(4) 301–311.

Mast, J. de., Van Wieringen, W.N. (2010). Modeling and evaluating repeatability and reproducibility of ordinal classifications. *Technometrics*, 52(1) 94–106.

Schoonhoven, M., Does, R.J.M.M. (2010). The X-bar control chart under non-normality. *Quality and Reliability Engineering International*, 26(2), 167-176.

Wieringen, W.N. van, De Mast, J. (2008). Measurement system analysis for binary data. *Technometrics*, 50(4) 468–478.

Forthcoming

Abbas, N., M. Riaz & R.J.M.M. Does (2011). “Enhancing the performance of EWMA charts”, Accepted for publication in *Quality and Reliability Engineering International*. [B]

Kemper, B.P.H., M.R.H. Mandjes (2011). “Mean sojourn times in two-queue fork-join systems: bounds and approximations”, Accepted for publication in *OR Spectrum*. [B]

Ledolter, J. & S. Bisgaard (2011). “Challenges in constructing time series models from process data”. Accepted for publication in *Quality and Reliability Engineering International*. [B]

Leeuwen, M. van & R.J.M.M. Does (2011). “Lean Nursing”, *Quality Engineering*, 23(1), pp. 94-99.

Mast, J. de, G. Diepstraten & R.J.M.M. Does (2011). “Design for Six Sigma: method and application”, *Quality Engineering* 23(2)

Mast, J. de, T.P. Erdmann, & W.N. van Wieringen (2011). “Measurement system analysis for binary inspection: Continuous versus dichotomous measurands” Accepted for publication in *Journal of Quality Technology*. [A]

Riaz, M., R. Mehmood & R.J.M.M. Does (2011). “On the performance of different control charting rules”, Accepted for publication in *Quality and Reliability Engineering International*. [B]

Riaz, M., N. Abbas & R.J.M.M. Does (2011). “Improving the performance of CUSUM charts”, Accepted for publication in *Quality and Reliability Engineering International*. [B]

Publications in numbers

Other research KE

				2010	
1) Academic publications	a)in refereed journals	A	1		
		B	3		
		Other	3	7	
	b) in other journals			5	5
	c) book chapters			0	0
d) proceedings			0	0	
Total				12	
2) Books				0	
3) Ph.D. theses				0	
4) Professional publications				0	
5) Popular publications				0	
				12	

Academic publications (excluding publications in/of books) – refereed

A

Mast., J. de, Van Wieringen, W.N. (2010). Modeling and evaluating repeatability and reproducibility of ordinal classifications. *Technometrics*, 52(1), 94–106.

B

- Bisgaard, S., Khachatryan, D. (2010). Asymptotic confidence intervals for variograms of stationary time series. *Quality and Reliability Engineering International*, 26(3), 259-265
- Kemper, B.P.H., De Mast, J., Mandjes, M.R.H. (2010). Modeling Process Flow Using Diagrams. *Quality and Reliability Engineering International*, 26(4), 341-349.
- Schoonhoven, M., Does, R.J.M.M. (2010). The X-bar control chart under non-normality. *Quality and Reliability Engineering International*, 26(2), 167-176.

Other

- Does, R.J.M.M., Van den Heuvel, J., De Mast, J., Niemeijer, G.C. (2010). Improving quality in healthcare while reducing costs. *Quality Management Forum*, 36(3), 12-15.
- Koning, H. de, Does, R.J.M.M., Groen, A., Kemper, B.P.H. (2010). Generic Lean Six Sigma project definitions in publishing. *International Journal of Lean Six Sigma*, 1(1), 39-55.
- Niemeijer, G.C., Trip, A., Ahaus, K.T.B., Does, R.J.M.M., Wendt, K.W. (2010). Quality in trauma care: Improving the discharge procedure of patients with Lean Six Sigma. *Journal of Trauma*, 69(3), 614-619.

Academic publications (excluding publications in/of books) – non-refereed

- Does, R.J.M.M. (2010). Toekomstvisie op het vak en het beroep. *Synaps*, 31, 30-32.
- Erdmann, T.P., Bisgaard, S., Does, R.J.M.M. (2010). A Gage R&R study in a hospital. *Quality Engineering* 22(1), 46-53.
- Erdmann, T.P., De Groot, M., Does, R.J.M.M. (2010). Improving the invoicing process of a consulting company. *Quality Engineering*, 22(3), 214-221.
- Mast, J. de, Does, R.J.M.M. (2010). Discussion of “Statistical thinking and methods in quality improvement. *Quality Engineering*, 22(3), 130-132.
- Trip, A., Does, R.J.M.M. (2010). Interpretation of signals from runs rules in Shewhart control charts. *Quality Engineering*, 22(4), 351- 357.

Contributions to academic conferences, workshops and seminars

- Does, R.J.M.M. (2010, 25 May). Continuous Process Improvement in Healthcare. ASQ World Conference, St. Louis. Invited presentation.
- Does, R.J.M.M. (2010, 31 May). Process Improvement in Healthcare. KAFEE lunch seminar, FEB, Amsterdam.
- Does R.J.M.M. (2010, 7 July). Process Improvement in Healthcare. International Symposium on Business and Industrial Statistics 2010, Portoroz (Portorose), Slovenia. Invited presentation.
- Does R.J.M.M. (2010, 7 October). Design of Control Charts for Location and Spread. Fall Tech Conference, Birmingham, AL. Invited presentation.
- Kemper, B.P.H. (2010, 17 September). Process Improvement in Healthcare. STAR Seminar on Stochastic Networks, Amsterdam.
- Mast, J. de (2010, 18 October). Problem Solving. International Academy for Quality, Izmir.
- Mast, J. de (2010, 8 October). Modeling and Evaluating Repeatability and Reproducibility of Ordinal Classifications. Fall Tech Conference, Birmingham, AL. Invited presentation.
- Schoonhoven, M., Does, R.J.M.M., Riaz, M. and Nazir, H.Z. (2010, 7 July). Robust Xbar Control Charts. International Symposium on Business and Industrial Statistics 2010, Portoroz (Portorose), Slovenia. Contributed presentation.

Other lectures on research

- Mast, J. de (2010, 1 September). Problem Structuring. BB Alumnidag, Amsterdam.

Other Research
Quantitative Economics

- Mast, J. de (2010, 10 March, 7 June). Reliability Masterclass. Dommelvalley Platform, Eindhoven.
- Mast, J. de (2010, 4 February). Design for Lean Six Sigma. AEGON, Den Haag.
- Mast, J. de (2010, June, August) Master Black Belt Masterclass. Amsterdam.
- Does R.J.M.M. (2010, 27 January). The implementation of Lean Six Sigma in Healthcare. Warnsborg.
- Does R.J.M.M. (2010, 1 February). Lean Six Sigma in Hospitals. Scholing Zorglogistiek, VUmc, Amsterdam.
- Does R.J.M.M. (2010, 30 March). Management of processes: Lean Six Sigma, Nijenrode Business Universiteit, Breukelen.
- Does R.J.M.M. (2010, 12 April). Masterclass Improvement in Healthcare. Business School Nederland, Buren.
- Does R.J.M.M. (2010, 9 December). Business Process Management: Lean Six Sigma, Nijenrode Business Universiteit, Breukelen.
- Kemper, B. (2010, 2 June). Lean Logistics. Logistics Convention (Danone), Amsterdam. Organisational contributions to conferences, workshops and seminars

Participation in academic networks & fellowships

- Does R.J.M.M. (2010). Academician, International Academy for Quality.
- Does R.J.M.M. (2010). Board member, Dutch Academy for Quality.
- Does R.J.M.M. (2010). Fellow, American Society for Quality (ASQ).
- Does R.J.M.M. (2010). Elected member, International Statistical Institute (ISI).
- Does R.J.M.M. (2010). Member of the ASQ Shewhart Medal Nomination Committee.
- Does R.J.M.M. (2010). Member of the ASQ Statistics Division Hunter Award Nomination Committee.
- Does R.J.M.M. (2010). Council Member, European Network for Business and Industrial Statistics (ENBIS).
- Does R.J.M.M. (2010). Board Member, Dutch Society for Statistics and Operations Research (VVS).
- Mast, J. de (2010). Associate Member, International Academy for Quality.
- Mast, J. de (2010). Senior Member, American Society for Quality (ASQ).

Editor or member of editorial board

- Does R.J.M.M. (2010). Member Editorial Board, and Member Advisory Board, *Quality Engineering*.
- Does R.J.M.M. (2010). Column Editor, *Quality Engineering*.
- Does R.J.M.M. (2010). Member Editorial Board, *Quality Technology and Quantitative Management*.
- Does R.J.M.M. (2010). Member Editorial Advisory Board, *International Journal of Lean Six Sigma*.
- Mast, J. de (2010). Member Editorial Board, *Quality Engineering*.

Referee activities

- Does, R.J.M.M. (2010). Referee for *Journal of Quality Technology*, *Quality Engineering*, *International Journal of Lean Six Sigma*, *Quality Technology and Quantitative Management*, *Quality and Reliability Engineering International*, *Journal of Chemometrics*, *International Journal of Quality and Reliability Management*.
- Mast, J. de (2010). Referee for *Journal of Quality Technology*, *Quality Engineering*, *Technometrics*.

Other Research
Quantitative Economics

Membership of academic committees (including Ph.D. committees outside the FEB)

Does, R.J.M.M. (2010). Member promotion committee of C. Rubingh, FNWI, UvA.

CHAPTER 10: MINT (MACRO AND INTERNATIONAL ECONOMICS)

Programme director: Prof.dr. W.J. den Haan
Department: Economics
METIS-code: uva/fee/res/toe/prog
JEL-classification: E, F, H, P
Web-address: www1.fee.uva.nl/mint
Starting date programme: 2001
VSNU-scores 2001-2007: Quality: 4, Productivity: 4, Relevance: 5, Viability: 4.5

10.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Beetsma, R.	prof dr	hgl	0,38	0,50	0,50	0,50	AE	1
Beetsma, R.	prof dr	hgl	0,15	-	-	-	AE	3
Buiter, W.	prof dr	guest	0,00	0,00	0,00	0,00	AE	1
Bucciol, A.	dr	postdoc	-	0,25	0,86	0,42	AE	3
Catalán-Aravena, O.O.	drs	docent	0,20	0,20	-	-	AE	1
Ceyhan, P.	drs	guest	-	-	-	0,00		1
Daniëls, T.R.	drs	Ph.D.	0,05	-	-	-	AE	1
Daniëls, T.R.	drs	guest	-	0,00	-	-	AE	1
Ellman, M.J.	prof dr	hgl	0,25	0,00	-	-	AE	1
Ewijk, C. van	prof dr	hgl	0,11	0,11	0,11	0,00	AE	1
Giuliodori, M.	dr	ud	0,50	0,50	0,50	0,50	AE	1
Haan, W.J. den	prof dr	hgl	0,80	0,80	0,80	0,80	AE	2
Hoogduin, L.	prof dr	hgl	0,07	0,00	0,02	0,05	AE	1
Jager, H.	prof dr	hgl	0,40	0,40	0,19	0,13	AE	1
Jacobs, B.	dr	ud	0,24	-	-	-	AE	1
Jung, P.	dr	postdoc	0,80	0,13	-	-	AE	2
Klaassen, F.J.G.M.	dr	uhd	0,50	0,50	0,50	0,50	AE	1
Knaack, R.K.	dr	uhd	0,00	0,00	-	-	AE	1
Knaap, T.	dr	guest	-	0,00	0,00	0,00	AE	1
Kirchner, M.	msc	Ph.D.	-	0,20	0,60	0,60	AE	1
Kriwoluzky, D.	dr	postdoc	-	-	0,33	0,66	AE	2
Leefmans, N.	drs	docent	-	0,00	0,00	0,00	AE	1
Lorié, J.A.	dr	guest	-	0,00	0,00	0,00	AE	1
Lozej, M.	msc	Ph.D.	-	0,25	0,60	0,60	AE	2
Omeno Sanchez, A.I.	dr	postdoc	-	0,00	0,00	0,42	AE	2
Ploeg, F. van der	prof dr	guest	0,00	0,10	0,10	0,10	AE	1
Rendahl R.P	dr	postdoc	0,27	0,53	-	-	AE	2
Ribeiro-Poplawski, M.	msc	Ph.D.	0,32	-	-	-	AE	1
Ribeiro-Poplawski, M.	dr	guest	-	0,00	0,00	-	AE	1
Romp, W.E.	dr	postdoc	-	0,80	0,80	0,80	AE	3
Rusinova, D.	msc	Ph.D.	0,33	0,19	0,10	-	AE	1
Schabert, A.	dr	guest	0,00	0,00	0,00	0,00	AE	1
Schouwstra, M.	drs	guest	0,00	-	-	-	AE	1
Sedláček, P.	msc	Ph.D.	-	0,25	0,60	0,60	AE	2
Sterk, V.	drs	Ph.D.	0,00	0,00	0,00	0,00	AE	1
Stoltenberg, C.A.	dr	ud	-	0,17	0,50	0,50	AE	1

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Teulings, C.N.	prof dr	hgl	-	-	0,00	0,10	AE	1
Thio, B.	dr	docent	0,06	0,00	-	-	AE	1
Veestraeten, D.	dr	ud	0,40	0,40	0,35	0,25	AE	1
Vermeulen, K.	dr	ud	0,44	0,50	-	-	AE	1
Vos, S.J.	drs	Ph.D.	0,15	0,60	0,60	0,60	AE	3
Wierds, P.	dr	guest	-	0,00	-	-	AE	1
Wijnbergen, S.J.G.	prof dr	hgl	0,11	0,11	0,11	0,11	AE	3
Wijnbergen, S.J.G.	prof dr	hgl	0,31	0,31	0,11	0,32	AE	1
Willems, T.	drs	Ph.D.	-	0,20	0,60	0,60	AE	1
Wind, J. de	drs	Ph.D.	-	0,00	0,00	0,00	AE	1
Zaheer, S.	drs	Ph.D.	-	-	0,00	0,00	AE	1
Total 1st flow of funds			4,23	4,28	4,18	4,15		
Total 2nd flow of funds			1,87	1,71	2,33	3,08		
Total 3rd flow of funds			0,41	1,76	2,37	1,93		
Total 1st f.o.f. excl. Ph.D.'s			3,86	3,94	2,88	2,95		
Total 1st-3rd flow of funds			6,51	7,75	8,88	9,16		
Ph.D. students			0,52	1,44	3,10	3,00		

10.2 PROGRAMME DESIGN

Objective

The programme uses empirical and theoretical methods to analyse important economic issues in the areas of macroeconomics and international economics. Special emphasis is given to the evaluation of existing fiscal and monetary policies and the question how these policies can be improved upon. Dissemination of the results takes place mainly via international, refereed scientific journals, but also via more policy-oriented outlets.

Motivation

The amount of growth that a country experiences not only has direct effects on the available resources, it can also have important indirect effects through, for example, the stability of the social and political environment. Similarly, the fluctuations countries face can have far reaching consequences to many, especially if these fluctuations mainly fall on subgroups within the population. It is therefore crucial to thoroughly understand the characteristics of economic developments, the factors that are behind them, and to what extent and how governments can affect these developments.

Themes

Monetary economics and monetary policy

Monetary policy is used throughout the world to accomplish important macroeconomic objectives like price stability, exchange rate stability, and/or full employment. Although there is agreement on several dimensions of this topic, there remain numerous important topics of interest. Alexander Kriwoluzky and Christian Stoltenberg have developed a framework with which they document that the standard practice of ignoring money holdings may be appropriate for the period of the “great moderation”, but is not appropriate for the earlier period, roughly before the 1980s. It may very well be inappropriate to ignore money holdings in the current situation.

Fiscal policy

Fiscal policy is a crucial aspect of macroeconomics given that government expenditures are a substantial fraction of GDP and financing these expenditures through debt and taxes are likely to have important effects on, for example, financial markets, labour force participation, and investment. Roel Beetsma and Massimo Giuliadori have several projects within this research area that focus on real time data. Questions addressed are what data did governments actually have when they had to make their decisions and how did announced plans deviate from actual outcomes and why. Fiscal policy also plays an important role in the research of Markus Kirchner. He has looked at the importance of using survey data to correctly estimate the impact of government stimulus on real activity. The idea is that it is essential to take into account the expectations of the private sector when the stimulus is implemented.

International economics

Henk Jager and Franc Klaassen have developed a new way to measure exchange rate pressure, which takes account of actions taken by authorities to offset market pressure. This measure has been used to (re)study the behaviour of exchange and interest rates during several important episodes. With Tijmen Daniëls, the above researchers have also developed a model to study currency crises. Using insights from global games, it becomes possible to better understand why an interest rate defense (or even just the threat of it) can be effective in avoiding a currency crisis.

Development economics

Sweder van Wijnbergen en Rick van der Ploeg are involved in several projects studying development economics. Special emphasis has been given to the role of natural resources, such as oil, for debt policies and economic growth.

Pensions and macroeconomic developments

Research projects of Roel Beetsma, Alessandro Buccioli, Casper van Ewijk, Ward Romp, and Siert-Jan Vos focus on the importance of macroeconomic and financial developments on key questions for pension funds, such as the sustainability of pension funds' obligations and the willingness to participate in a pension fund, but also on the interaction between macroeconomic developments and choices made by pension funds, such as investment decisions and the determination of benefit levels.

Business cycles

Several projects mentioned above deal with business cycles. Here we mention some projects that study business cycles that do not fall neatly into any of the categories mentioned above. Tim Willems and Sweder van Wijnbergen explain why in recent times employment takes so long to reach pre-recession levels during the recovery. Wouter den Haan and Arturo Ormeno are developing a framework to study the impact of irrational beliefs by some firms on the rest of the economy. In particular, they address the question whether unfounded pessimism by irrational firms can cause an economic downturn such that rational firms also downgrade their expectations. In this case, the beliefs of the rational firms would follow those of the irrational firms. Also, Wouter den Haan and Matija Lozej develop a model to study the effect of news shocks on business cycles in a small open economy.

Macroeconomic models with heterogeneous agents and incomplete markets

Building models that incorporate the complexity and diversity of economic systems is important, not only because it allows us to study a richer set of issues like the interplay between economic policies and distributional effects, but also because aggregate developments themselves are likely to depend on differences in the economic activity of the components of the aggregate economy. Both the development of numerical algorithms that make it possible to analyse such models and the analysis itself are important aspects of the research in this group. For example, Wouter den Haan and Petr Sedlacek develop a

framework with heterogeneous firms that face inefficiencies and they show that in such a model aggregate fluctuations have serious negative welfare consequences.

The recent crisis has highlighted the importance of understanding how information asymmetries and other frictions affect financial markets and whether such frictions have macroeconomic consequences. Heterogeneity and frictions in financial markets play important roles in the work by Vincent Sterk on the consequences of a reductions in house prices on the flexibility of workers to accept jobs in different regions. Also, the frictions firms face in obtaining debt and equity has been studied using both empirical and theoretical studies in the work by Francisco Covas and Wouter den Haan. How financial innovation has affected the cyclical behaviour of consumer loans has been studied by Wouter den Haan and Vincent Sterk and how it has affected the cyclical behaviour of firm financing has been studied by Matija Lozej.

Tools

Joris de Wind has developed a procedure to make it possible to estimate time-varying VARs with a large number of variables by relating the time-varying coefficients to a low-dimensional factor structure. Wouter den Haan and Joris de Wind have written a paper to document the problems of higher-order versions of the popular perturbation solution method and proposed an alternative

10.3 PROGRAMME EVALUATION

During 2010, Alexander Kriwoluzky left the group to take up a position as a junior professor at the University of Bonn. Matija Lozej left the group to take up a position at the Central Bank of Slovenia. Arturo Ormeno, a graduate from UPF, joined the group as a postdoc.

During 2010 the group published 25 articles in international refereed journals and there are 13 of such publications forthcoming. This is a remarkable increase, since these numbers were 16 and 13 for 2009. It has been an exceptional year in terms of getting into the most esteemed journals. Wouter den Haan, together with Francisco Covas, has a paper forthcoming in the *American Economic Review*, an A+-level journal on the Tinbergen list, and Roel Beetsma and Massimo Guiliadori have an article recently published in the *Journal of Economic Literature*, a journal in which prominent economists are asked to review recent developments in their field.

The AIOs of the group also have done well. Vincent Sterk, an AIO of Wouter den Haan, published an article in the *Journal of Monetary Economics*, an A-level journal on the Tinbergen list. Vincent Sterk has also given seminars at the Federal Reserve Banks of New York and Philadelphia and Oxford University and has been asked to give 20 seminars at institutions like the Bank of Canada, the Bank of England, IIES, University College London, and CREI (UPF). Joris de Wind, an AIO of Wouter den Haan, has been asked to visit Northwestern University for some time

The visibility of the group and the interaction with the academic community have been further enhanced during the last year through numerous invited seminars, conference participations, and mini-courses taught at other universities.

In addition to the publication of academic papers, the research group has also written for practitioners and taken part in the public debate on issues such as pension reform, the stimulus package, and long-term consequences of the financial crisis. Members of the group are also involved in advising the government and government agencies. Roel Beetsma was a member of the committee to advise social affairs minister Piet Hein Donner on the effects of ageing and the financial crisis on the Dutch pension system. Sweder van Wijnbergen has been a member of advisory committees to the minister of Economic Affairs on postal market

deregulation and the valuation of radio frequency distribution. Wouter den Haan is an academic partner of the Dutch Bureau of Economic Policy Analysis (CPB).

10.4 RESOURCES AND FUNDING

Several projects of the programme are (partly) financed by external funds: the project on market frictions and DSGE models led by Wouter den Haan is financed by NWO and the project on the macroeconomics of pension reform led by Roel Beetsma is financed by Netspar. Sweder van Wijnbergen has received a 4-year grant for research on credit crisis consequences by the Strijbis-Gieskes Foundation. In addition, two AIOs are financed by De Nederlandsche Bank and one postdoc is financed by Mn Services.

10.5 OUTPUT

Key publications

- Beetsma, R.M.W.J. & Giuliadori, M. (2010). The Macroeconomic Costs and Benefits of the EMU and other Monetary Unions: An Overview of Recent Research, *Journal of Economic Literature*, 48, 603-641.
- Covas, F. & Den Haan, W.J. (2010). The Cyclical Behaviour of Debt and Equity Finance, *American Economic Review*, forthcoming.
- Klaassen, F.J.G.M. & Jager, H. (2010). Definition-consistent measurement of exchange market pressure. *Journal of International Money and Finance*, forthcoming.
- Sterk, V. (2010). Credit Frictions and the Comovement between Durable and Non-durable Consumption. *Journal of Monetary Economics*, 57, 217-225.

Forthcoming

- Algan, Y., Allais, O., Den Haan, W.J. & Rendahl, P. (2011). Solving and Simulating Models with Heterogeneous Agents and Aggregate Uncertainty. In: Judd, K. & Schmedders, K. (eds), *Handbook of Computational Economics*.
- Beetsma, R.M.W.J. & Buccioli, A. (2011). Consequences for Welfare and Pension Buffers under Alternative Methods of Discounting Future Pensions. *Journal of Pension Economics and Finance*.
- Beetsma, R.M.W.J. & Giuliadori, M. (2011). The Effects of Government Spending Shocks: Review and Estimates for the EU. *The Economic Journal*.
- Buccioli, A. (2011). Measuring Self-Control Problems: a Structural Estimation. *Journal of the European Economic Association*.
- Buccioli, A. (2011). Luck or Cheating? An Experiment on Deception with Children. *Journal of Economic Psychology*.
- Buccioli, A. (2011). A Note on Social Security Welfare with Self-Control Problems. *Macroeconomic Dynamics*.
- Buccioli, A., Houser, D. & Piovesan, M. (2011). Temptation at Work: A Field Experiment on Willpower and Productivity. *Journal of Economic Behaviour and Organisation*.
- Buccioli, A. & Miniaci, R. (2011). Household Portfolios and Implicit Risk Preference. *The Review of Economics and Statistics*.
- Covas, F. & Den Haan, W.J. (2011). The Cyclical Behaviour of Debt and Equity Finance. *American Economic Review*.
- Den Haan, W. J. & Lozej, M. (2011). Pigou Cycles in Closed and Open Economies with Matching Frictions. Forthcoming in Clarida, R. & Giavazzi, F. (eds), *NBER International Seminar on Macroeconomics 2010*. Cambridge: National Bureau of Economic Research.

- Den Haan, W.J. & Sterk, V. (2011). The Myth of Financial Innovation and the Great Moderation. *The Economic Journal*.
- Den Haan, W.J., Sumner, S.W. & Yamashiro, G.M. (2011). Bank Loan Components and the Time-Varying Effects of Monetary Policy Shocks. *Economica*.
- Den Haan, W.J., Judd, K.L. & Juillard, M. (2011). Computational Suite of Models with Heterogeneous Agents II: Incomplete Markets and Aggregate Uncertainty. *Journal of Economic Dynamics and Control*.
- Jager, H. & Jepma, C.J (2011). *Introduction to International Economics*, 2nd ed., Hants: Palgrave/Macmillan.
- Klaassen, F.J.G.M. & Jager, H. (2011). Definition-consistent measurement of exchange market pressure. *Journal of International Money and Finance*.
- Van Ewijk, C., Van der Horst, A., Bettendorf, L., Draper, N., Mooij, R. de & Ter Rele, H. (2011). going and the conflict of interest between generations. *De Economist*.

Publications in numbers

<i>Mint</i>				2010
1) Academic publications	a) in refereed journals	A	13	
		B	8	
		Other	4	25
	b) in other journals		9	9
	c) book chapters	A	2	
		B	0	
		Other	3	5
	d) proceedings	Other	0	0
Total				39
2) Books		A	0	
		B	0	
		Other	1	1
3) Ph.D. theses			2	2
4) Professional publications			2	2
5) Popular publications			8	8
6) Working papers			24	24
Total				76

Dissertations

- Bjarnason, M. (2010, 16 September). Iceland's Position at the Beginning of the 21st Century, Universiteit van Amsterdam. [promotor prof. dr. R.M.W.J. Beetsma] [cat. I]
- Den Reijer, A. (2010, 26 March). Macroeconomic Forecasting using Business Cycle Leading Indicators. Universiteit van Maastricht. [promotor prof. dr. Palm] [cat. IV]

Academic publications (excluding publications in/of books) – refereed

A

- Algan, Y., Allais, O. & Den Haan, W.J. (2010). Solving the Incomplete Markets Model with Aggregate Uncertainty Using Parameterized Cross-sectional Distributions. *Journal of Economic Dynamics and Control*, 34 (1), 59-68.
- Beetsma, R.M.W.J. (2010). Comment on “Monetary policy and Financial Imbalances: Facts and Fiction”, by Assenmacher-Wesche, K. & S. Gerlach, *Economic Policy*, 25, 476-478.
- Beetsma, R.M.W.J. & Giuliodori, M. (2010). The Macroeconomic Costs and Benefits of the EMU and other Monetary Unions: An Overview of Recent Research. *Journal of Economic Literature*, 48, 603-641.

- Den Haan, W.J. (2010). Comparison of Solutions to the Incomplete Markets Model with Aggregate Uncertainty. *Journal of Economic Dynamics and Control*, 34 (1), 4-27.
- Den Haan, W.J. (2010). Assessing the Accuracy of the Aggregate Law of Motion in Models with Heterogeneous Agents. *Journal of Economic Dynamics and Control*, 34 (1), 79-99.
- Den Haan, W.J., Judd, K.L. & Juillard, M. (2010). Computational Suite of Models with Heterogeneous Agents: Incomplete Markets and Aggregate Uncertainty. *Journal of Economic Dynamics and Control*, 34 (1), 1-3.
- Den Haan, W.J. & Rendahl, P. (2010). Solving the Incomplete Markets Model with Aggregate Uncertainty Using Explicit Aggregation. *Journal of Economic Dynamics and Control*, 34 (1), 69-78.
- Gautier, P.A., Svarer, M. & Teulings, C.N. (2010). Marriage and the City: Search Frictions and Sorting of Singles. *Journal of Urban Economics*, 67 (2), 206-218.
- Gautier, P.A., Teulings, C.N. & Van Vuuren, A. (2010). On-the-Job Search, Mismatch and Efficiency. *Review of Economic Studies*, 77, 245-272.
- Sterk, V. (2010). Credit Frictions and the Comovement between Durable and Non-durable Consumption. *Journal of Monetary Economics*, 57 (2), 217-225.
- Van der Ploeg, F. (2010). Aggressive oil extraction and precautionary saving. *Journal of Public Economics*, 94, 421-433.
- Van der Ploeg, F. (2010). Voracious transformation of a common natural resource into productive capital. *International Economic Review*, 51, 365-381.
- Van der Ploeg, F. & Poelhekke, S. (2010). The pungent smell of “red herrings”: subsoil assets, rents, volatility, and the resource curse. *Journal of Environmental Economics and Management*, 60, 44-55.

B

- Arezki, R. & Van der Ploeg, F. (2010). Trade policies, institutions and the natural resource curse. *Applied Economics Letters*, 17, 1443-1451.
- Beetsma, R.M.W.J. & Giuliodori, M. (2010). Fiscal Adjustment to Cyclical Developments in the OECD: An Empirical Analysis Based on Real-Time Data. *Oxford Economic Papers*, 62, 419-441.
- Collier, P., van der Ploeg, F., Spence, M. & Venables, A.J. (2010). Managing windfall revenue in developing economies. *IMF Staff Papers*, 57, 84-118.
- Ganoulis, I. & Giuliodori, M. (2010). Financial Liberalization and House Price Dynamics in Europe. *Applied Economics*, 1-18.
- Portela, M., Alessie, R. & Teulings, C.N. (2010). Measurement Error in Education and Growth Regressions. *Scandinavian Journal of Economics*, 112, 618-639.
- Teulings, C.N. (2010). How to Share Our Risks Efficiently? Principles for Optimal Social Insurance and Pension Provision. *De Economist*, 158, 1-21.
- Van der Ploeg, F. (2010). Why do many resource-rich countries have negative genuine saving rates? Anticipation of better times or rapacious rent seeking. *Resource and Energy Economics*, 32, 28-44.
- Van der Ploeg, F. (2010). Political economy of prudent budgetary policy. *International Tax and Public Finance*, 17, 295-314.

Other

- Buccioli, A. & Beetsma, R.M.W.J. (2010). Inter- and Intra-generational Consequences of Pension Buffer Policy under Demographic, Financial and Economic Shocks. *CESifo Economic Studies*, 56 (3), 366-403.
- Buccioli, A., Houser, D. & Piovesan, M. (2010). Willpower in Children and Adults: a Survey of Recent Results and Economic Implications. *International Review of Economics*, 57 (3), 259-267.
- Cruijssen, C.A.B. van der, Eijffinger, S.C.W. & Hoogduin, L.H. (2010). Optimal central bank transparency. *Journal of International Money and Finance*, 29, 1482-1507.
- Jager, H. (2009). Dollarreserves onder druk. *Kwartaalschrift Economie*, 6, 296-298.

Academic publications (in/of books) – refereed

A

- Jager, H. & Klaassen, F.J.G.M. (2010). Exchange Market Pressure. In: Durlauf, S.N. & Blume, L.E. (eds), *The New Palgrave Dictionary of Economics Online Edition*. Palgrave Macmillan.
- Van Ewijk, C. (2010). Comments on Taxation Policy in the EMU. In: Buti et al (eds), *The Euro: The First Decade* (pp. 597-640). Cambridge: Cambridge University Press.

Other

- Van der Ploeg, F. (2010). Africa and the natural resource curse. In: Vieira, I., Vieira, C., Caleiro, A. & Richter, C. (eds), *Globalisation, New Challenges: Macroeconomic, International Trade and Finance Issues*. Lambert Academic Publishing.
- Van der Ploeg, F. (2010). Growth and volatility in developing economies. In: Berendsen, B. (ed), *Economic growth and the Common Good – From Crisis to Sustainable Development* (pp. 29-51). Amsterdam: KIT publishers.

Academic publications (excluding publications in/of books) – non-refereed

- Bartelsman, E.J., Gautier, P.A. & De Wind, J. (2010). Ontslagbescherming en houdbare overheidsfinanciën. *Economisch Statistische Berichten*, 347-348.
- Beetsma, R.M.W.J. (2010). Het financieel toetsingskader van de pensioenen geëvalueerd. *Economisch Statistische Berichten*, 678-681.
- Beetsma, R.M.W.J. & Gradus, R. (2010). Filling the Sustainability Gap after the Crisis: The Case of the Netherlands. *CESifo Dice Report*, 8, 69-74.
- Beetsma, R.M.W.J. & Widijanto, D. (2010). De Griekse schuldencrisis. *Economisch Statistische Berichten*, 742-745.
- Blommestein, H.J. & Van Ewijk, C. (2010). Integrale visie op pensioenstelsel nodig. *Economisch Statistische Berichten*, 95, 230-233.
- Gradus, R., Beetsma, R.M.W.J. & Smit, R. (2010). Op weg naar houdbare overheidsfinanciën. *Economisch Statistische Berichten*, 95, 70-73.
- Jager, H. (2010). Een perfecte sleutelvaluta? *Fiducie*, 17, 38-41.
- Jager, H. (2010). Wat zijn de gevolgen van een valutaoorlog voor Nederland? *Economisch Statistische Berichten*, 95, 672.
- Jager, H. (2010). Eindelijk een eurozonecrisis. *Internationale Spectator*, 64, 365-366.

Academic publications (in/of books) – non-refereed

- Blommestein, H.J., Hoogduin, L.H. & Peeters, J.W. (2009). Uncertainty and Risk Management after the Great Moderation: The Role of Risk (Mis)Management by Financial Institutions. In: Balling, M., Berk, J.M. & Strauss-Kahn, M.-O. (eds), *The Quest for Stability: The View of Financial Institutions* (pp. 7-30), *SUERF Study*, 2010/3.
- Van Ewijk, C., Van der Horst, A., Bettendorf, L., Draper, N. de Mooij, R. & Ter Rele, H. (2010). Vergrijzing verdeeld: Toekomst van de Nederlandse Overheidsfinanciën, *Speciale Studie*, 86, CPB, Den Haag, 142 pp.

Academic publications (working- and discussion papers)

- Bartelsman, E.J., Gautier, P.A., & De Wind, J. (2010). Employment Protection, Technology Choice, and Worker Allocation. *CEPR Discussion Paper*, 7806, *IZA Discussion Paper*, 4895 and *Tinbergen Institute Discussion Paper*, 2010-042/3.
- Beetsma, R.M.W.J. & Buccioli, A. (2010). Differentiating Indexation in Dutch Pension Funds. *Netspar Discussion Paper*, 12/2010-80.
- Beetsma, R.M.W.J. & Giuliadori, M. (2010). Discretionary Fiscal Policy: Review and Estimates for the EU. *CESifo Discussion Paper*, 2948.

- Beetsma, R.M.W.J., Giuliodori, M., Walschot, M. & Wierdsma, P.J. (2010). Fifty Years of Fiscal Planning and Implementation in the Netherlands. *CEPR Discussion Paper*, 7969.
- Coenen, G., Kirchner, M., Straub, R. & Trabandt M. (2010). Enhancing the Fiscal Block of the Estimated New Area-Wide Model. European Central Bank.
- Den Haan, W. J. & De Wind, J. (2010). How well-behaved are higher-order perturbation solutions? *DNB Working Paper*, 240.
- Den Haan, W. J. & De Wind, J. (2010). Nonlinear and stable perturbation-based approximations. Universiteit van Amsterdam.
- Dia, E. & Giuliodori, M. (2010). A Dynamic Model of Bank Interest Margins: Theory and Empirical Evidence, Universiteit van Amsterdam.
- Hoogduin, L.H., Öztürk, B. & Wierdsma, P.J. (2010). Public debt managers' behaviour: interactions with macro policies. *DNB Working Paper*, 273.
- Kirchner, M. (2010) Expectations-Based Identification of Government Spending Shocks. Universiteit van Amsterdam.
- Kirchner, M., Cimadomo, J. & Hauptmeier, S. (2010). Transmission of Government Spending Shocks in the Euro Area: Time Variation and Driving Forces. *European Central Bank Working Paper*, 1219.
- Kirchner, M. & Rieth, M. (2010). Sovereign Risk and Macroeconomic Fluctuations in an Emerging Market Economy. *Tinbergen Institute Discussion Paper*, 2010/100-2.
- Kriwoluzky, A. & Stoltenberg, C.A. (2010). Money and Reality. Universiteit van Amsterdam.
- Kriwoluzky, A. & Stoltenberg, C.A. (2010). Nested Models and Model Uncertainty. Universiteit van Amsterdam.
- Lepetyuk, V. & Stoltenberg, C.A. (2010). Policy Announcements and Welfare. Universiteit van Amsterdam.
- Sterk, V. (2010). Home Equity, Mobility, and Macroeconomic Fluctuations. *DNB Working paper*, 265.
- Stoltenberg, C.A. (2010). Real Balance Effects, Timing and Equilibrium Determination. Universiteit van Amsterdam.
- Van Ewijk, C., & de Groot, H. (2010). A meta analysis of the equity premium. *Tinbergen Institute Discussion Paper*, 10-078/3, *CPB Discussion Paper*, 156, and *Netspar Discussion Paper*, 09/2010-050.
- Veestraeten, D.J.M. (2010). Exchange rate determination in crawling bands and under time-dependent conversion rates. Universiteit van Amsterdam.
- Veestraeten, D.J.M. (2010). Erratum to “An alternative approach to modelling relapse in cancer with an application to adenocarcinoma of the prostate”. Universiteit van Amsterdam.
- Veestraeten, D.J.M. (2010). The return of the Pound to the Dollar in 1925. Further support for Keynes' speculative anticipations. Universiteit van Amsterdam.
- Veestraeten, D.J.M. (2010). Partial double barrier options. Universiteit van Amsterdam.
- Willems, T. (2010). Labor market matching under imperfect information. *Tinbergen Institute Discussion Paper*, 10-098/2.
- Willems, T. (2010). What are the effects of monetary policy shocks? Evidence from dollarized countries. *Tinbergen Institute Discussion Paper*, 10-099/2.

Professional publications

- Beetsma, R.M.W.J., Giuliodori, M., Walschot, M. & Wierdsma P.J. (2010). Fiscal planning in Europe: How to improve credibility? *Vox EU*.
- Van Ewijk, C. & Van Leuvensteijn, M. (2010). Reduce Tax on Residential mobility. *Vox EU*.

Popular publications

- Beetsma, R.M.W.J. (2010, February). Redding van een icoon bron voor toekomstige crises? Column for *VPRO's Tegenlicht*.

- Beetsma, R.M.W.J. (2010, March). Richt geen Europees Monetair Fonds op. *NRC Handelsblad, Opinie & Debat*.
- Beetsma, R.M.W.J. (2010, October). De rekening is voor de jongeren – vooral zij zullen de prijs van de gedoogsteun van de PVV betalen. *NRC Next*.
- Beetsma, R.M.W.J. & Hartog, J. (2010, July). Geef collegegelden vrij. *De Volkskrant*.
- Beetsma, R.M.W.J. & Van den Brink, R.G.C. (2010, November). Afstempeling schuld is nodig. *Financieel Dagblad*.
- Beetsma, R.M.W.J. & Van Wijnbergen, S.J.G. (2010, September). Waarschuwing aan nieuw kabinet: neem pensioenakkoord niet over. *NRC Handelsblad, Opinie & Debat*.
- Buccioli, A., Maggiani, V., Montinari, N. & Piovesan, M. (2010). Dal Laboratorio all'Impresa: L'Economia Sperimentale. *Ticonzero Knowledge and Ideas for Emerging Leaders*, 111.
- Van Ewijk, C. Van, Bovenberg, L. & Teulings, C.N. (2010, March). Crisis Pensioenfondsen. *NRC Handelsblad*.

Contributions to academic conferences, workshops and seminars

- Beetsma, R.M.W.J. (2010, March). Comment on Bénétrix & Lane “Fiscal Shocks and the Real Exchange Rate”. CEPR/Deutsche Bundesbank/Universität Mainz/ECB 5th Annual Workshop on Global Interdependence. Eltville.
- Beetsma, R.M.W.J. (2010, March). Een sterke tweede pijler. Naar een toekomstbestendig stelsel van aanvullende pensioenen. Abvakabo theme meeting. Amersfoort.
- Beetsma, R.M.W.J. (2010, June). Comment on van Riet “The Crisis in Euro Area Public Finances: in Search of a Credible Fiscal Strategy”. Netspar Conference on Long- and Medium-Term Fiscal Challenges. The Hague.
- Beetsma, R.M.W.J. (2010, September). Comment on “An SGP Mark III? Can It Work? And What Should It Look Like?” Bruegel-IMF Conference “Sovereign Risk and Fiscal Policy in the Euro Area: Lessons from the Crisis”. Brussels.
- Beetsma, R.M.W.J. (2010, October). The Consequences of Indexed Debt for Welfare and Funding Ratios in the Dutch Pension System. Netspar Conference on Macroeconomics of Pension Reform. The Hague.
- Beetsma, R.M.W.J. (2010, December). Comment on Abbas et al. “Large Fiscal Adjustment Plans vs. Outcomes in the European Union”. IMF Conference on Fiscal Adjustment Plans.
- Buccioli, A. (2010, September). Do Not Trash the Incentive! Fondazione Benetton Studi Ricerche. Treviso, Italy.
- Den Haan, W.J. (2010, January/February). Mini research seminar series on computational methods. London School of Economics, London, UK.
- Den Haan, W.J. (2010, January). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. Catholic University of Milan, Milan, Italy.
- Den Haan, W.J. (2010, January). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. University of Cologne, Cologne, Germany.
- Den Haan, W.J. (2010, April). The Role of Debt and Equity Finance over the Business Cycle. Federal Reserve Bank of New York, New York City, USA.
- Den Haan, W.J. (2010, April). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. University Federal Reserve Bank of Philadelphia, Philadelphia, USA.
- Den Haan, W.J. (2010, April). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. University of Zurich, Zurich, Switzerland.
- Den Haan, W.J. (2010, May). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. ESSIM, CEPR, Tarragona, Spain.
- Den Haan, W.J. (2010, May/June). Mini research seminar series on models with heterogeneous agents. Sveriges Riksbank, Stockholm, Sweden.
- Den Haan, W.J. (2010, June). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. European Central Bank, Frankfurt, Germany.

- Den Haan, W.J. (2010, June). Pigou Cycles in Closed and Open Economies With Matching Frictions. NBER International Seminar on Macroeconomics, DNB, Amsterdam.
- Den Haan, W.J. (2010, September). Discussion at conference organised by Sveriges Riksbank, Stockholm, Sweden.
- Den Haan, W.J. (2010, October). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. Einaudi Institute for Economics and Finance, Bank of Italy, Rome, Italy.
- Den Haan, W.J. (2010, October). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. Vienna, Austria.
- Den Haan, W.J. (2010, October). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. University College London, London, U.K.
- Den Haan, W.J. (2010, November). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. Bank of Norway, Oslo, Norway.
- Den Haan, W.J. (2010, November). Inefficient Employment Decisions, Entry Costs, and the Costs of Fluctuations. Oxford University, Oxford, UK.
- Den Haan, W.J. (2010, December). Discussion at Conference organised by Federal Reserve Bank of Philadelphia, USA.
- Den Haan, W.J. (2010, December). Discussion at Conference organised by National Bank of Belgium, Brussels, Belgium.
- De Wind, J. (2010, March). Reduced rank time-varying Vector Autoregressions. University of Amsterdam, Amsterdam.
- De Wind, J. (2010, July). Reduced rank time-varying Vector Autoregressions. De Nederlandsche Bank, Amsterdam.
- Giuliodori, M. (2010, January). Discussion of Wiertz, P. “Preferences for fiscal rules or discretion: a case study for France and Germany”. ECB Public Finance Workshop “Challenges for fiscal sustainability in the EU”, Frankfurt.
- Giuliodori, M. (2010, January). Discussion of Nicolov, I. “Fiscal Sustainability Convergence: How the Crisis Caught ‘Old’ Europe Unprepared”. ECB Public Finance Workshop “Challenges for fiscal sustainability in the EU”, Frankfurt.
- Giuliodori, M. (2010, January). Discussion of Ribeiro, M. and Rülke, J.C. “Market’s Expectations on the Stability of Growth Pact: Evidence from Survey Data”. ECB Public Finance Workshop “Challenges for fiscal sustainability in the EU”, Frankfurt.
- Giuliodori, M. (2010, April). Discussion of Afonso, A. and Sousa, R. “Consumption, Wealth, Stock and Government Bond Returns: International Evidence”. European Public Choice Society, Izmir, Turkey.
- Giuliodori, M. (2010, April). Discretionary fiscal policy: review and estimates for the EU. European Public Choice Society, Izmir, Turkey.
- Giuliodori, M. (2010, May). Discretionary fiscal policy: review and estimates for the EU. 14th International Conference in Macroeconomic Analysis and International Finance, Crete.
- Giuliodori, M. (2010, May). Discussion of Caporale, G.M., Onorante, L. and Paesani, P. “Inflation and Inflation Uncertainty in the Euro Area”. 14th International Conference in Macroeconomic Analysis and International Finance, Crete.
- Giuliodori, M. (2010, June). Discussion of Eisenschmidt, J. and Holthausen, C. “The Minimum Liquidity Deficit and the Maturity Structure of Central Bank’s Open Market Operations: Lessons from the Financial Crisis”. 7th Euroframe Conference on Economic Policy in the European Union “After the crisis: Exit strategies for EU economies in a globalised world”, Amsterdam.
- Giuliodori, M. (2010, June). Discussion of Gerlach, S. and Lewis, J. “The Zero Lower Bound, ECB Interest Rate Policy and the Financial Crisis”. 7th Euroframe Conference on Economic Policy in the European Union “After the crisis: Exit strategies for EU economies in a globalised world”, Amsterdam.
- Giuliodori, M. (2010, June). Fifty Years of Fiscal Planning and Implementation in the Netherlands. Seminar at Erasmus University, Rotterdam.

- Giuliodori, M. (2010, June). Fifty Years of Fiscal Planning and Implementation in the Netherlands. XXII Villa Mondragone International Economic Seminar “Recovery After the Crisis: Perspectives and Policies”, Rome.
- Giuliodori, M. (2010, November). Discussion of Cassette, A., Creel, J., Farvaque E. and Paty, S. “Government Under Influence: Country Interactions in Discretionary Fiscal Policy”. “New Issues on Fiscal Federalism and Tax Competition”, Lyon
- Giuliodori, M. (2010, December). Discussion of Gray, D., Jobst, A. and Malone, S. “Sovereign Debt, Banking Sector Vulnerability, and Dynamic Risk Spillovers in Europe”. Public Debt and Economic Growth”, Brussels.
- Jager, H. (2010, April). Economic analysis of the power of the United States. Radboud University Nijmegen.
- Kirchner, M. (2010, July). Transmission of Government Spending Shocks in the Euro Area: Time Variation and Driving Forces. 16th Annual Conference on Computing in Economics and Finance, City University London, United Kingdom.
- Kirchner, M. (2010, August). Sovereign Risk and Macroeconomic Fluctuations in an Emerging Market Economy. 26th Congress of the European Economic Association, University of Glasgow, United Kingdom.
- Kirchner, M. (2010, September). Expectations-Based Identification of Government Spending Shocks. MInt Seminar, Universiteit van Amsterdam.
- Kirchner, M. (2010, November). Transmission of Government Spending Shocks in the Euro Area: Time Variation and Driving Forces. Ph.D. lunch seminar, Tinbergen Institute Amsterdam.
- Klaassen, F.J.G.M. (2010, March). MInt Research Group overview and presentation on Exchange Market Pressure. Tinbergen Institute Seminar. Universiteit van Amsterdam.
- Klaassen, F.J.G.M. (2010, December). Identifying the weights in exchange market pressure. Tilburg University.
- Klaassen, F.J.G.M. (2010, December). Identifying the weights in exchange market pressure. Tinbergen Institute.
- Lozej, M. (2010, February). Cyclical Behaviour of Firm Debt Financing. MInt seminar, Universiteit van Amsterdam.
- Lozej, M. (2010, July). Pigou Cycles in Closed and Open Economies with Matching Frictions. Society for Computational Economics – Computing in Economics and Finance, London.
- Lozej, M. (2010, August). Pigou Cycles in Closed and Open Economies with Matching Frictions. 25th Annual Congress of the European Economic Association, Glasgow.
- Ormeno, A. (2010, January). Disciplining Expectations: Using Survey Data in Learning Models. Royal Economic Society Fifth Ph.D. Presentation Meeting. London.
- Ormeno, A. (2010, February). Disciplining Expectations: Using Survey Data in Learning Models. Magyar Nemzeti Bank. Budapest, Hungary.
- Ormeno, A. (2010, May). Disciplining Expectations: Using Survey Data in Learning Models. Swiss National Bank. Zurich, Switzerland.
- Ormeno, A. (2010, October). Using Survey Data in the Estimation of Learning and Rational Expectations Models. CESifo Conference on Macroeconomics and Survey Data. Munich, Germany.
- Romp, W.E. (2010, February). Pension funds and the business cycle, Mint Seminar, Amsterdam, The Netherlands.
- Sedlacek, P. (2010, March). Inefficient employment decisions, entry costs, and the costs of fluctuations, MInt seminar, Universiteit van Amsterdam.
- Sedlacek, P. (2010, June). Skill heterogeneity, efficiency of matching and job finding rate fluctuations, 2nd Conference on Recent Developments in Macroeconomics, ZEW, Mannheim.
- Sedlacek, P. (2010, September). Skill heterogeneity, efficiency of matching and job finding rate fluctuations, Tinbergen Institute, Amsterdam.

- Sterk, V. (2010, March). Credit Frictions and the Comovement between Durable and Non-durable Consumption. Federal Reserve Bank of New York.
- Sterk, V. (2010, May). Home Equity, Mobility, and Macroeconomic Fluctuations. Federal Reserve Bank of New York.
- Sterk, V. (2010, November). Home Equity, Mobility, and Macroeconomic Fluctuations. MInt seminar, Universiteit van Amsterdam,
- Sterk, V. (2010, November). Home Equity, Mobility, and Macroeconomic Fluctuations. University of Oxford.
- Sterk, V. (2010, December). Home Equity, Mobility, and Macroeconomic Fluctuations. Federal Reserve Bank of Philadelphia and the Kiel Institute for the World Economy Conference, Philadelphia, USA.
- Sterk, V. (2010, December). Home Equity, Mobility, and Macroeconomic Fluctuations. Paris School of Economics.
- Sterk, V. (2010, December). Home Equity, Mobility, and Macroeconomic Fluctuations. Banque de France.
- Stoltenberg, C.A. (2010, June). Money and Reality. Economic Theory Workshop, Universidad de Alicante, Spain.
- Stoltenberg, C.A. (2010, August). Money and Reality. Annual Conference European Economic Association, Glasgow.
- Van Ewijk, C. (2010, March). Effectieve sturing en verdeling van risico's. Netspar Anniversary Meeting, Tilburg.
- Van Ewijk, C. (2010, October). The design of three pillar pension systems. Macroeconomics of Pension Reform, The Hague.
- Van Ewijk, C. (2010, November). Discounting pensions: supervisory perspective. Seminar on Discounting Pensions, Duisenberg School of Finance, Amsterdam.
- Vos, S.J. (2010, January). Discussion of Westerhout, E. "Intergenerational risk sharing in time-consistent pension schemes, pensions and endogenous labor supply in general equilibrium". Netspar workshop.
- Vos, S.J. (2010, March). Voluntary participation in a funded pension system. Tinbergen Institute distinguished visitor teaching programme seminar.
- Vos, S.J. (2010, June). Voluntary participation in a funded pension system. Netspar theme conference: Macroeconomics of pension reform.
- Vos, S.J. (2010, November). Voluntary participation in a funded pension system. Netspar pension day.
- Vos, S.J. (2010, November). Discussion of Hollanders, D. & Bersem, M. "Pension fund governance". Netspar pension day.
- Willems, T. (2010, April). Labor market matching under imperfect information. NAKE-conference, Utrecht.
- Willems, T. (2010, August). Labor market matching under imperfect information. European Economic Association meeting, Glasgow.

Other lectures on research

- Buccioli, A. (2010). Three invited lectures on "Financial Econometrics and Non-Linear Econometrics". University of Venice "Ca'Foscari", Faculty of Economics, Italy.
- Van Ewijk, C. (2010, September). De toekomst van de zorg in Nederland, Seneca conferentie, Lauswolt.
- Vestraeten, D.J.M. (2010, September). Lecture on the position and role the World Bank and the International Monetary Fund with emphasis on the food price increases for staff of the Dutch Ministry for Agriculture, Nature and Food Quality at Clingendael Institute (The Hague).

Organisational contributions to conferences, workshops and seminars

- Den Haan, W.J. (2010). Organiser of MInt weekly workshop.

- Den Haan, W.J. (2010). Programme committee member of the 2010 Summer meetings of the European Economic Association, Glasgow, U.K.
- Den Haan, W.J. (2010). Co-organiser of the annual macro workshop, Munchen, Germany.
- Kirchner, M. (2010). Co-organisation of the KAFEE seminar series for the General Economics group at the University of Amsterdam.
- van Ewijk, C. (2010). Organiser conference on Macroeconomics of Pensions, The Hague.

Participation in academic networks & fellowships

- Beetsma, R.M.W.J. (2010). Research Fellow CEPR.
- Beetsma, R.M.W.J. (2010). Research Fellow CESifo.
- Beetsma, R.M.W.J. (2010). Fellow Tinbergen Institute.
- Beetsma, R.M.W.J. (2010). Fellow NAKE.
- Beetsma, R.M.W.J. (2010). International Research Fellow of Kiel Institute of World Economics.
- Beetsma, R.M.W.J. (2010). Senior Research Fellow of Netspar.
- Buccioli, A. (2010). Researcher at the University of Verona.
- Buccioli, A. (2010). Fellow Netspar.
- Den Haan, W.J. (2010). Research Fellow CEPR.
- Den Haan, W.J. (2010). Fellow Tinbergen Institute.
- Giuliodori, M. (2010). Fellow Tinbergen Institute.
- Jager, H. (2010). Research fellow NAKE.
- Jager, H. (2010). Fellow Amsterdam Institute for International Development (AIID).
- Klaassen, F.J.G.M. (2010). Fellow Tinbergen Institute.
- Romp, W.E. (2010). Fellow Tinbergen Institute.
- Romp, W.E. (2010). Research Fellow Netspar.
- Stoltenberg, C.A. (2010). Research Associate, National Research Center 649 “Economic Risk”, Humboldt-University Berlin.

Editor or member of editorial board

- Beetsma, R.M.W.J. (2010). Associate Editor *Journal of Economic Literature*.
- Beetsma, R.M.W.J. (2010). Associate Editor *CESifo Economic Studies*.
- Den Haan, W.J. (2010). Advisory Editor *Journal of Economic Dynamics and Control*.
- Den Haan, W.J. (2010). Associate Editor *Journal of Money Credit and Banking*.
- Den Haan, W.J. (2010). Associate Editor *Economica*.
- Jager, H. (2010). Member Editorial Board *Kwartaalschrift Economie*.
- Van Ewijk, C. (2010). Editor *De Economist*.

Referee activities

- Beetsma, R.M.W.J. (2010). Referee for *Southern Economic Journal, Fiscal Studies, Journal of Comparative Economics, Oxford Economic Papers, Public Choice*.
- Buccioli, A. (2010). Referee for *Journal of Economic Psychology, Journal of Pension Economics and Finance, Quantitative Economics*.
- Den Haan, W.J. (2010). Referee for *American Economic Review, Review of Economic Studies, Economic Theory, Journal of Monetary Economics, Journal of Money Credit and Banking, Review of Economics and Statistics, Economica, Review of Economic Dynamics, Netherlands Bureau of Economic Analysis*.
- Giuliodori, M. (2010). Referee for *European Journal of Political Economy, Contemporary Economic Policy, Journal of Financial Stability, International Journal of Central Banking, Journal of Economics and Business, Journal of Banking and Finance, Scottish Journal of Political Economy, Economic Modeling*.
- Klaassen, F.J.G.M. (2010). Referee for *Emerging Markets Finance and Trade, European Journal of Political Economy, International Finance, International Journal of*

- Forecasting, Journal of Economics and Business, Journal of International Economics, Review of World Economics (Weltwirtschaftliches Archiv).*
- Romp, W.E. (2010). Referee for *Macroeconomic Dynamics, FinanzArchiv*.
- Sterk, V. (2010). Referee for *Scottish Journal of Political Economy*.
- Stoltenberg, C.A. (2010). Referee for *Econometrica, Economic Journal, Journal of Money, Credit and Banking, European Economic Review, Macroeconomic Dynamics*.
- Van Ewijk, C. (2010). Referee for *De Economist*.
- Veestraeten, D.J.M. (2010). Referee for *Journal of International Money and Finance, Computational Economics, TPEdigitaal*.
- Willems, T. (2010). Referee for *German Economic Review*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Buccioli, A. (2010). Invited external member promotion committee of Manuela Deidda. University of Rome “Tor Vergata”, Italy.
- Den Haan, W.J. (2010). Academic partner of the Netherlands Bureau for Economic Policy Analysis.
- Den Haan, W.J. (2010). Invited external member promotion committee of Kalin Nikolov. London School of Economics, London, UK.
- Hoogduin, L.H. (2010). Invited external member promotion committee of Erik Roelofsen, Erasmus University.
- Hoogduin, L.H. (2010, 23 September). Invited external member promotion committee of Middeldorp, M.
- Hoogduin, L.H. (2010, 19 October). Invited external member promotion committee of Noordegraaf-Eels, L.
- Jager, H. (2010). Member advisory board of FONDAD (Forum on Debt and Development). The Hague.
- Jager, H. (2010). Member selection committee Isaac Roet Prize.
- Giuliodori, M. (2010). Invited external member promotion committee of Harold P.E. Ngalawa. University of Cape Town, South Africa.

Research contributions in the media

- Beetsma, R.M.W.J. (2010, 4 February). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 10 February). Interview with MeJudice Television.
- Beetsma, R.M.W.J. (2010, 11 February). Interview with RTL-Z Television.
- Beetsma, R.M.W.J. (2010, 11 February). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 15 February). Interview with RTL-Z Radio.
- Beetsma, R.M.W.J. (2010, 22 March). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 21 April). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 10 May). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 10 May). Interview in Spits.
- Beetsma, R.M.W.J. (2010, 17 May). Interview in Spits.
- Beetsma, R.M.W.J. (2010, 6 July). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 23 August). Interview with RTV Noord-Holland Radio.
- Beetsma, R.M.W.J. (2010, 15 September). Interview with Radio 1.
- Beetsma, R.M.W.J. (2010, 16 September). Interview in Nieuwsuur.
- Beetsma, R.M.W.J. (2010, 24 October). Interview in Buitenhof.
- Beetsma, R.M.W.J. (2010, 29 October). Interview with Radio 1.
- Beetsma, R.M.W.J. (2010, 2 November). Interview with BNR Business News Radio.
- Beetsma, R.M.W.J. (2010, 18 December). Interview in De Financiële Telegraaf.
- Jager, H. (2010, 26 April). Interview with BNR Business News Radio.
- Jager, H. (2010, 6 May). Interview with BNR Business News Radio.
- Jager, H. (2010, 11 May). Interview with BNR Business News Radio.
- Jager, H. (2010, 28 June). Interview with BNR Business News Radio.

- Jager, H. (2010, 28 July). Interview with BNR Business News Radio.
Jager, H. (2010, 23 October). Interview with Radio 1.
Klaassen, F.J.G.M. (2010, 5 February). Interview with Stand.nl.
Klaassen, F.J.G.M. (2010, 10 February). Interview with Stand.nl.
Klaassen, F.J.G.M. (2010, 11 February). Interview with BNR Business News Radio.
Klaassen, F.J.G.M. (2010, 19 March). Interview with Utrechts Dagblad.
Klaassen, F.J.G.M. (2010, 25 November). Interview with Radio 1 Belgium.
Van Ewijk, C. (2010, 12 September). Interview in Buitenhof.

Grants, prizes and honours

- Beetsma, R.M.W.J. (2010). Netspar theme grant for the programme Multi-pillar pension schemes and macroeconomic performance (2010-2013).
Beetsma, R.M.W.J. (2010). Research project sponsored by Mn Services Transition from Old to New Pension Contracts with Hard and Soft Rights (2010-2011).
Beetsma, R.M.W.J. (2010). Netspar theme grant for the programme The Macroeconomics of Pension Reform (2007-2010).
Beetsma, R.M.W.J. (2010). Grant for three-year postdoc position on Mn Services project Pension Premia, Buffers and Business Cycles (2008-2011).
Beetsma, R.M.W.J., Goudswaard, K., Schnabel, P. & Nijman, T.E. (2010). NPN pensioenprijs voor “Uitzonderlijke bijdrage aan de pensioenfondssector”.
Den Haan, W.J. (2010). VICI scholarship from N.W.O.
Van Ewijk, C. (2010). Netspar grant on Multi-pillar pension schemes and macroeconomic performance.

Various activities

- Beetsma, R.M.W.J. (2010). Member of Supervisory Board of BNG Capital Management (BCM).
Beetsma, R.M.W.J. (2010). De rol van de werkgever in de pensioenregeling, Report commissioned by the Dutch Ministry of Finance.
Beetsma, R.M.W.J. (2010). Member of “Commissie Toekomstbestendigheid Aanvullende Pensioenregelingen” (“Commissie Goudswaard”), Report: Een sterke tweede pijler. Naar een toekomstbestendig stelsel van aanvullende pensioenen, Ministry of Social Affairs and Employment.
Beetsma, R.M.W.J. (2010). Expert hearing on financial position of pension funds, Dutch Parliament, 3 November 2010.
Hoogduin, L.H. (2010). Member of the Advisory Board of Tilburg Center of Finance and Tilburg Finance Academy.
Hoogduin, L.H. (2010). Member of the selection committee of the chair “Financiële Infrastructuur en Systeemrisico”, University of Tilburg.
Hoogduin, L.H. (2010). Member of the Scientific Advisory Board of TPEdigitaal.
Hoogduin, L.H. (2010). Member of the Advisory Board of the Financiële Studievereniging Amsterdam.
Hoogduin, L.H. (2010). Member of the Advisory Board of the Faculty for Economics and Business Administration, State University of Groningen.
Hoogduin, L.H. (2010). Member of the Comité van Aanbeveling of the Financial Study Association Risk, Groningen.
Hoogduin, L.H. (2010). Member of the Foundation Board of the International Center for Monetary and Banking Studies.
Hoogduin, L.H. (2010). Member of the board of the Duisenberg School of Finance.
Hoogduin, L.H. (2010). Member of the Advisory Board of SEO Economisch Onderzoek.
Hoogduin, L.H. (2010). Secretary / treasurer of the Koninklijke Vereniging van de Staathuishoudkunde.

MInt – Den Haan
Economics

- Kirchner, M. (2010). Visiting Researcher, Directorate General Economics, Fiscal Policies Division, European Central Bank, Frankfurt am Main, Germany.
- Sterk V. (2010). Teaching assistant at Amsterdam Macroeconomics Summer Courses, organised by Prof. dr. W.J. den Haan.
- Van Ewijk, C. (2010). Member board of advisors, NZA (Dutch Healthcare Authority)
- Van Ewijk, C. (2010). Member Social Economic Council (kroonlid SER)
- Van Ewijk, C (2010). Member steering committee, ENEPRI (European Network of Economic Policy Research Institutes).

CHAPTER 11: HUMAN CAPITAL

<i>Subprogrammes:</i>	<i>TIER & AIID</i>
<i>Programme director:</i>	<i>Prof.dr. J. Hartog</i>
<i>Department:</i>	<i>Economics</i>
<i>METIS code:</i>	<i>uva/fee/res/hum/prog</i>
<i>JEL-classification:</i>	<i>I, J, L</i>
<i>Website:</i>	<i>www.ase.uva.nl/scholar</i>
<i>Starting date programme:</i>	<i>2001</i>
<i>VSNU-scores 2001-2007:</i>	<i>Quality: 4.5, Productivity: 4, Relevance: 5, Viability: 4,5</i>

11.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Functio n</i>	<i>Tota l 2007</i>	<i>Tota l 2008</i>	<i>Tota l 2009</i>	<i>Tota l 2010</i>	<i>Dept.</i>	<i>Fundin g</i>
Buser, T.	msc	Ph.D.	-	-	0,20	0,60	AE	1
Chevalier, A.	dr	guest	-	-	0,00	0,00	AE	1
Dominguez Martinez, S	dr	ud	0,17	0,50	0,50	0,50	AE	1
Drange, N.E.	msc	guest	-	-	-	0,00	AE	1
Ferrer-i-Carbonell, A.	dr	oz	0,67	-	-	-	AE	2
Hartog, J.	prof dr	hgl	0,38	0,50	0,50	0,50	AE	1
Hsieh, C.	dr.	ud	-	-	-	0,48	AE	1
							AE/V	
Kastoryano, S.P.	msc	Ph.D.	-	-	0,10	0,30	U	1
Leuven, E.	dr	postdoc	0,90	0,60	-	-	AE	2
Maestri, V.	dr	oz	0,75	0,50	-	-	AE	3
Mazza, J.	msc	Ph.D.	0,50	0,60	0,60	0,60	AE	2
Oosterbeek, H.	prof dr	hgl	0,50	0,50	0,50	0,50	AE	1
Plug, E.J.S.	dr	hgl	0,90	0,45	-	0,27	AE	2
Plug, E.J.S.	dr	hgl	-	0,25	0,50	0,67	AE	1
Praag, B.M.S. van	prof dr	hgl	0,00	0,00	0,00	0,00	CvB	pm
Praag, C.M. van	prof dr	hgl	0,25	0,25	0,25	0,25	AE/BS	1
Rosendahl Huber	msc	Ph.D.	-	-	-	0,20	AE	3
Rosero Moncayo, J.A.	msc	Ph.D.	-	0,20	0,60	0,60	AE	1
Siemens, F.A von	dr	ud	-	0,17	0,50	0,50	AE	1
Sloof, R.	dr	uhd	0,50	0,50	-	-	AE	1
Sloof, R.	prof dr	hgl	-	0,00	0,50	0,50	AE	1
Stel, A.J. van	dr	oz	-	0,21	0,42	0,42	AE	3
Valdenaire, M.	dr	oz	0,42	0,83	-	-	AE	3
Welie, E.A.A.M. van	dr	guest	-	0,00	0,00	0,00	AE	1
IJsselstein, A.	drs	Ph.D.	0,20	-	-	-	AE	1

Human Capital – Hartog
Economics

<i>Name</i>	<i>Title</i>	<i>Functio n</i>	<i>Tota l 2007</i>	<i>Tota l 2008</i>	<i>Tota l 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Fundin g</i>
<u>Subprogramme TIER</u>								
Balvers, M.P.J.M.	MSc	guest	-	-	0,00	0,00	AE	1
Booij, A.S.	drs	Ph.D.	0,20	-	-	-	AE	2
Booij, A.S.	dr	guest	-	0,00	0,00	-	AE	1
Booij, A.S.	dr	oz	-	-	-	1,00	AE	2
Coonen, M.H.E.		guest	-	-	-	0,00		
Ewijk, R.J.G.	drs	Ph.D.	-	0,00	0,00	-	AE	1
Ewijk, R.J.G.	dr	postdoc	-	-	0,50	0,17	AE	3
Groot, W.	prof dr	guest	0,00	0,00	0,00	0,00	AE	3
Haan, M. de	msc	Ph.D.	0,60	0,40	-	0,80	AE	2
Haan, M. de	dr	oz	-	0,30	0,80	-	AE	3
Heerden, A. van	MSc	oz	-	-	0,00	0,00	AE	1
Hidalgo, D.	drs	Ph.D.	-	-	0,20	0,60	AE	3
Huang, J.	msc	Ph.D.	0,60	0,60	0,40	-	AE	2
Huang, J.	msc	oz	-	-	0,33	0,67	AE	2
Huang, J.	msc	guest	-	-	-	0,00	AE	2
Klaveren, C.P.B.J. van	drs	guest	0,00	0,00	0,00	-	AE	1
Maassen van den Brink, H.	prof dr	hgl	0,50	0,51	0,53	0,53	AE	3
Mensink, J.	dr	guest	-	0,00	-	-	AE	2
Webbink, D.	dr	guest	0,00	0,00	0,00	0,00	AE	1
Witte, K. de		guest	-	-	-	0,00	AE	1
Wolf, I.F. de	dr	guest	0,00	0,00	0,00	0,00	AE	1
<u>Subprogramme AIID</u>								
Gaag, J. van der	prof dr	hgl	-	-	0,80	0,80	AE	3
Lammers, J.	dr	oz	-	-	1,00	1,00	AE	3
Pradhan, M.P.	prof dr	hgl	-	-	0,15	0,15	AE	1
Total 1st flow of funds			2,66	2,89	4,30	5,55		
Total 2nd flow of funds			4,87	2,65	1,33	3,34		
Total 3rd flow of funds			1,92	2,35	4,25	3,72		
Total 1st f.o.f. excl. Ph.D.'s			2,46	2,69	3,40	4,05		
Total all flows of funds			9,45	7,89	9,88	12,6		
Ph.D. students			2,10	1,80	2,10	3,70		

11.2 PROGRAMME DESIGN

Mission

The programme aims to improve the understanding of the economic role of human capital.

Motivation

Human capital is the key concept to describe, analyse and understand individual competencies in the labour market. They are vital for individuals' welfare, for business performance and for aggregate economic performance. Understanding issues of definition, measurement, investment, obsolescence, utilization and (market) valuation of human capital can contribute to a better understanding of the functioning of external and internal labour markets, and form the

basis for solid advice on policy issues related to socio-economic questions of efficiency and distribution of economic welfare.

Techniques

Participants of the programme apply techniques from microeconomics (including applied game theory), econometrics and experimental economics. The research orientation is both theoretical and empirical.

Subprogrammes and projects

Human capital has a very flexible structure, with scope for individual research projects, internal and external joint work and cooperation and more formal projects. Research in the Human Capital programme covers several topics, such as intergenerational transmission of inequality (Plug), on incentives, payment systems and internal organisation of firms (Sloof), on entrepreneurship (C.M. van Praag), on immigration and on risk issues in schooling (Hartog). Van Praag's work on entrepreneurship and schooling involves cooperation with the flourishing and expanding ACE, The Amsterdam Center of Entrepreneurship. Scholars from AIID also participate in the programme. The Amsterdam Institute for International Development (AIID) is a joint initiative of the University of Amsterdam and the VU University Amsterdam. AIID is a multidisciplinary research network with a strong focus on generating evidence to improve the design of policies to reduce poverty. AIID scholars participate in particular with their research on human capital and health and with impact evaluation of sector-wide programmes. The three institutes, TIER, ACE and AIID, all share the same ambition to perform research at the highest academic standards on issues with high societal relevance: education, entrepreneurship, economic development of poor nations.

For many years SCHOLAR, funded by a large grant from NWO, was a highly successful project on the interaction between education and the labour market. SCHOLAR has been succeeded by TIER, Top Institute for Evidence Based Education Research, started May 1, 2008, a new recognition of the successful blend of scientific quality and policy relevance. TIER is funded by a large 5-year grant from the Ministry of Education (and matching by participating universities), but the grant is fully administered by NWO. The Institute is joint with RU Groningen, RU Maastricht and CPB. Research will focus on the effectiveness of policy interventions in education.

TIER has ambitious goals: it wants to contribute to the improvement of the quality of education in the Netherlands by promoting the evidence based approach as a guiding principle in education policy and practice. It intends to accomplish this by developing (cost) effective education interventions that are grounded in scientific research and scientific insights. The research is funded through the NWO and must comply with the NWO formulated rules of evaluation.

The aim of the institute is to conduct excellent scientific research, to operationalise the results of this research and to put the results at the disposal of education policy and practice. The institute wants to develop knowledge of evidence based education that can be applied by: 1) the Ministry of Education, Culture and Science, in policy preparation and evaluation; 2) the educational practice - such as teachers and educational institutions - in the allocation of means and when making educational choices; 3) parents and students, when choosing a school or training. TIER aims to be an element that binds research, practice and policy in the field of education.

The mission of ACE is to promote entrepreneurship through research and education. It's a joint venture of UvA, HvA and VU. ACE aims to contribute solid research to the international scientific community and to disseminate results in education, among policy makers, (potential) entrepreneurs and in society at large. ACE is strongly embedded in the social and political structures related to entrepreneurship and in the international research

community, both informally and formally (eg joint research projects, reputed international fellows).

The Amsterdam Institute for International Development (AIID) aims at a comprehensive understanding of international development, with a special emphasis on the reduction of poverty in developing countries and transition economies. The institute is a multidisciplinary network with a strong focus on policy. Its policy advice is based on long-term fundamental research. The network includes researchers in the fields of biology, earth sciences, economics, law, medicine, political and social sciences.

By striving to accomplish its mission, AIID hopes to be of service to the millions of individuals around the world still living in greater or lesser poverty.

11.3 PROGRAMME EVALUATION

Human Capital continues to be a flourishing research programme. Members generate a permanent flow of high quality research output and have a strong international reputation. The number of publications at A level was relatively modest in 2010, but there is a good list of A level publications forthcoming. Overall, output is substantial in terms of quantity, quality and impact (citations, social impact). Reputation is evident from invitations for (keynote) speeches, contributions to research volumes, journal guest editorship, and referee activities for the world's leading journals. Research quality makes Human Capital attractive for visiting professors, post-docs and Ph.D. students. Members are also frequently consulted on government policy issues (ad hoc and in institutions like Onderwijsraad (Education Council) and undertake commissioned research that fits their academic programme. Within Human Capital, the focus on entrepreneurship has continued to expand, with increasing success in academia and in the interface between science and society. Within the Tinbergen Institute, labour economics is an active, lively research area, with substantial international exchange; Human Capital members play an important role here.

The relevance of research in the Human Capital programme has drawn international attention, and there is active international cooperation. The emphasis on new methodological methods to detect causal effects of policy interventions has led to cooperation with government officials in Ecuador and with AIID scholars.

The threats to the programme derive from the situation at FEB with a squeeze on funding, increasing teaching loads which reduces time for research and may even stimulate researchers to leave, the image of unreliability created by the restrictions on Ph.D. positions for M.Phil. graduates. Moreover, poor standards of administration and governance are not conducive to entrepreneurial research efforts (developing new initiatives, new institutes, seek external funding etc). Perhaps the general lack of support for active expansionary research efforts is the greatest threat.

11.4 RESOURCES AND FUNDING

TIER-research is funded through the NWO and must comply with the NWO formulated rules of evaluation. Over a period of 5 years (2008-2013) TIER will receive €5.3 million from NWO. Furthermore, in 2008-2010 commissioned external funding for TIER UvA (partly in cooperation with TIER UM) was 226.475 euro. All tenured researchers are now funded by FEB. One Ph.D. student is externally funded (NWO). Several visiting researchers participate in the program, without financial compensation. ACE and AIID also receive substantial external funding. In 2011, ACE received some 3.6 million euro in external subsidies.

11.5 OUTPUT

Key publications

- Diaz Serrano, L., Hartog, J. & Skyt Nielsen, H. (2008). Compensating Wage Differentials for Schooling Risk in Denmark. *Scandinavian Journal of Economics*, 110 (4), 711-731.
- Bjorklund, A., M. Lindahl, E.Plug (2006). The origins of intergenerational associations: lessons from Swedish adoption data. *Quarterly Journal of Economics*, 121 (3), 999-1028 .
- Leuven, E., M. Lindahl, H. Oosterbeek and D. Webbink (2007). The effect of extra funding for disadvantaged students on achievement. *Review of Economics and Statistics* 89 (4), 721-736.
- Maximiano, S., R. Sloof and J. Sonnemans (2007). Gift exchange in a multi-worker firm. *Economic Journal* 117, 1025-1050.
- Parker, S. C. and C. M. van Praag (2006). Schooling, capital constraints and entrepreneurial performance: the endogenous triangle. *Journal of Business and Economic Statistics* 24 (4), 416-431
- Groot, W. and H. Maassen van den Brink (2006). The compensating income variation of cardiovascular disease. *Health Economics* 15, 1143-1148.

Forthcoming

- Bartling, B. & Siemens, F.A. von (2010). Wage Inequality and Team Production: An Experimental Analysis. *Journal of Economic Psychology*. [B]
- Belot, M. & Webbink, D. (2010). Do teacher strikes harm student achievement?. *LABOUR: Review of Labour Economics and Industrial Relations*.
- Berkhout, E., P. Berkhout, & Webbink, D (2010). The effect of a curriculum change in Dutch secondary education. *De Economist*.
- Emrouznejad, A. & Witte, K. de (2010). COOPER-framework: A Unified Standard Process for Non-parametric Projects. *European Journal of Operational Research*. Doi: 10.1016/j.ejor.2010.07.025.
- Haan, M. de & Plug, E.J.S. (2010). Estimating Intergenerational Schooling Mobility on Censored Samples: Consequences and Remedies. *Journal of Applied Econometrics*.
- Hartog, J. & Zorlu, A. (2010). Ethnic minorities in The Netherlands. In: Martin Kahanic (editor), *Ethnic Minorities in European Labour Markets: Challenges and Solutions*, Edward Elgar
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Human Capital – Hartog
Economics

Publications in numbers

<i>Human Capital</i>				2010
1) Academic publications	a) in refereed journals	A	4	
		B	17	
		Other	12	33
	b) in other journals		1	1
	c) book chapters	A	0	
		B	0	
		Other	5	5
	d) in proceedings		0	0
	Total			42
	2) Books	A	0	
B		0		
Other		2	2	
3) Ph.D. theses		1	1	
4) Professional publications		10	10	
5) Popular publications		38	38	
6) Working papers		33	33	
Total			124	

Dissertations

Huang, J. (2010, 25 May). Education and Social Capital — Empirical Evidence from Microeconomic Analysis [promotoren: prof.dr. H. Maassen van den Brink & prof. dr. W.J.N. Groot] [cat. 1]

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Other

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- Groot, W., Maassen van den Brink, H., Witte, K. de, Cabus, S. & Thyssen, G. (2010). *Voortijdig schoolverlaten: Beleidsevaluatie 2010 – Deel 1 Verkenningen*.

Academic publications (in/of books) – non-refereed

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- Cabus, S. & Witte, K. de (2010). Does School Time Matter? On the impact of compulsory education age on school dropout. *TIER Working Paper Series*, 10/27.
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- Dominguez Martinez, S., Sloof, R. & Siemens, F.A. von (2010). Monitoring Your Friends, Not Your Foes: Strategic Ignorance and the Delegation of Real Authority. *CESifo Working Paper Series*, 3172.
- Dominguez-Martinez, S., Siemens, F. von & Sloof, R (2010). Monitoring your friends, not your foes: Strategic ignorance and the delegation of real authority, *Tinbergen Institute Discussion paper*, 10-101/1.
- Gaag, J. van der, Janssens, W. & Groot-Bruiderink, M. (2010). RPC impact evaluation in St Lucia, *AIID working paper*.

- Gaag, J. van der & Adams, A. (2010). Where is the Learning? Measuring schooling efforts in Developing Countries, *Brookings Institution, Policy Brief*, 2010-04.
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- Millan, J.M., Congregado, E., Roman, C., Praag, C.M. van & Stel, A. van (2010). The value of an educated population for an individual's entrepreneurship success, working paper
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- Witte, K. de & Verschelde, M. (2010). Estimating and explaining efficiency in a multilevel setting: A robust two-stage approach. *U Gent Working Paper*, 2010/657, *TIER Working Paper Series*, 10/04.

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Professional publications

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- Groot, W. & Maassen van den Brink, H. (2010). Onderwijs en productiviteit, *TIER/SBO rapport*, Amsterdam.
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- Groot, W. & Maassen van den Brink, H. (2010). Productiviteit door en in het onderwijs, *Economisch Statistische Berichten* 95 (4583), p. 244-245.
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- Munich, D., Plug, E., Psacharapoulos, G. & Schlotter, M.(2010). Equity in and through Education and Training: Indicators and Priorities. Analytical report for the European Commission prepared by the European Expert Network of Economics of Education (EENEE).
- Praag, C.M. van (2010). Fiscale prikkels exclusief voor groei, innovatie en high potentials. *Vakblad voor de MKB-adviseur* 9, p 16-21.
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- Groot, W. & Maassen van den Brink, H. (2010). Zorg is de boksbal van de politiek. Het Financieele Dagblad, 25 januari.
- Groot, W. & Maassen van den Brink, H. (2010). Specialisten in het nauw. Het Financieele Dagblad, 8 februari.
- Groot, W. & Maassen van den Brink, H. (2010). Het prisoner's dilemma' voor ziekenhuizen. Het Financieele Dagblad, 23 februari
- Groot, W. & Maassen van den Brink, H. (2010). Nostalgie naar betere tijden. Het Financieele Dagblad, 8 maart.
- Groot, W. & Maassen van den Brink, H. (2010). Periodieke APK-keuring bij de huisarts. Het Financieele Dagblad, 22 maart.
- Groot, W. & Maassen van den Brink, H. (2010). Unrealistische bezuinigen. Het Financieele Dagblad, 6 april.
- Groot, W. & Maassen van den Brink, H. (2010). Verkiezingsprogramma's zonder keuzes. Het Financieele Dagblad, 19 april.
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- Groot, W. & Maassen van den Brink, H. (2010). Voedsel duurder maken is goed voor de gezondheid. Het Financieele Dagblad, 17 mei.

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- Groot, W. & Maassen van den Brink, H. (2010). Schoonmaken is zorg. Het Financieele Dagblad, 12 juli.
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- Groot, W. & Maassen van den Brink, H. (2010) Hoofdpijn voor de nieuwe minister van VWS. Het Financieele Dagblad, 20 september
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- Groot, W. & Maassen Van den Brink, H. (2010) Meer, meer, meer in de zorg. Het Financieele Dagblad, 1 november.
- Groot, W. & Maassen van den Brink, H. (2010) Samenwerken of samenspannen Het Financieele Dagblad, 15 november.
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- Groot, W. & Maassen van den Brink, H. (2010) Een markt voor private oudereninitiatieven. Het Financieele Dagblad, 13 december.
- Groot, W. & Maassen Van den Brink, H. (2010) Liever minder leraren maar dan wel beter betaald, de Volkskrant, 25 maart.
- Groot, W. & Maassen Van den Brink, H. (2010) Verbeter hoger onderwijs met eindtoets, de Volkskrant, 1 november.
- Praag, B.M.S. van (2010). Ons pensioenstelsel wordt uitgekleeft. De Volkskrant, 31 mei
- Praag, B.M.S. van (2010). Maak krekels tot mieren. Herstructureer pensioenen en arbeidsmarkt. Het Financieele Dagblad, 19 juni.
- Bernard van Praag (2010). VVD laat zich piepelen door links. NRC Handelsblad, 7 juli.
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- Praag, B. van (2010). Pensioen. Voorstel vormt de afbraak van ons pensioenstelsel en is strijdig met Pensioenwet 2007. Delen in beleggingsrisico is geen pensioen. NRC Handelsblad, 14 oktober.
- Praag, C.M. van (2010). Fiscaal bevorderen van groei en innovatie via de DGA? Essay voor de Studiecommissie Belastingstelsel (Van Weeghel) over ondernemerschap en fiscaliteit (besproken in Het Financieele Dagblad, 18 januari)
- Praag, C.M. van (2010). Ondernemers genoeg, nu de groei nog. Essay in Het Financieele Dagblad, 27 februari, p. 17.
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- Praag, C.M. van (2010, Februari), NRC Handelsblad Opinie
- Praag, C.M. van (2010, Februari), interview in RABO ledenblad xxx
- Praag, C.M. van (2010, Februari), dubbelinterview in Ondernemingsinnovatie
- Praag, C.M. van (2010, November), MeJustice Uitgelicht: teams en innovatie.

Contributions to academic conferences, workshops and seminars

- Buser, T. (2010, May 19). The impact of the menstrual cycle and hormonal contraceptives on competitiveness, Workshop on Biology and Finance, Stockholm University.
- Buser, T. (2010, June 18). The impact of the menstrual cycle and hormonal contraceptives on competitiveness, Seminar, Universitat de les Illes Balears.
- Buser, T. (2010, July 8-10). The neural determinants of social preferences, ESA World Meeting, Copenhagen.
- Buser, T. (2010, August 15-21). The impact of the menstrual cycle and hormonal contraceptives on competitiveness, Econometric Society World Congress, Shanghai.
- Buser, T. (2010, September 6-7). The impact of the menstrual cycle and hormonal contraceptives on competitiveness, MOVE Workshop on Gender Economics, Barcelona.
- Buser, T. (2010, December 21). Handedness Predicts Social Preferences: Evidence Connecting the Lab to the Field, 5th End-of-year conference Swiss Economists Abroad, Switzerland.
- Dominguez-Martinez, S. (2010, 11 June). Monitoring your friends, not your foes: Strategic ignorance and the delegation of real authority. 3rd Maastricht Behavioural and Experimental Economics Symposium: Theory and Experiments. Maastricht.
- Dominguez-Martinez, S. (2010, 23-26 August). Monitoring your friends, not your foes: Strategic ignorance and the delegation of real authority. Annual Congress of the European Economic Association. Glasgow, UK.
- Haan, M. de (2010, October 19). The effect of parents' schooling on child's schooling: A nonparametric bounds analysis. Statistics Norway. Oslo, Norway. Invited seminar.
- Haan, M. de (2010, June 10-12). School consolidation in a nationwide voucher system: The effect on pupil test scores. Annual conference of the European Society for Population Economics (ESPE), Essen, Germany.
- Hartog, J. (2010, February 25-26). If you're so smart, why aren't you an entrepreneur? DIW /IZA Workshop Entrepreneurship Research. IZA Bonn.
- Hartog, J. (2010, September 3-4). Starting wages respond to employer risk. Area conference on Economics of Education. CESifo Munchen.
- Hartog, J. (2010, September 13). Starting wages respond to employer's risk, Aarhus School of Business, Denmark.
- Hsieh, C. & Kalliny, M. (2010, September). Misaligned organisational forms and the distancing within multinational multi-team R&D operations. University of Amsterdam. Invited workshop.
- Hsieh, C. (2010, October). Different paths of self-employed Jacks-of-all-trades: in what manner are business functions learned to drive entry into self-employment? ICSB conference. George Washington University, Washington DC, USA.
- Hsieh, C. & Kalliny, M. (2010, November). Misaligned organisational forms and the distancing within multinational multi-team R&D operations. University of Amsterdam. Invited seminar.
- Hsieh, C. (2010, November). Different paths of self-employed Jacks-of-all-trades: in what manner are business functions learned to drive entry into self-employment? Strategic Entrepreneurship conference. Copenhagen Business School, Denmark.
- Kastoryano, S. & Klaauw, B. van der (2010, June 17-19). Dynamic Evaluation of Job Search Training. Sole & EALE Joint Annual Meeting. London.
- Kastoryano, S. & Klaauw, B. van der (2010, August 17-21). Dynamic Evaluation of Job Search Training. Econometric Society World Congress. Shanghai.
- Kastoryano, S. & Klaauw, B. van der (2010, October 1-2). Dynamic Evaluation of Job Search Training. 3rd joint IFAU/IZA Conference on Labor Market Policy Evaluation. Uppsala.
- Kastoryano, S. & Klaauw, B. van der (2010, December 21) Dynamic Evaluation of Job Search Training. 5th End-of-Year Conference of Swiss Economists Abroad. Gerzensee.

- Ladd, H.F., Fiske, E.B., & Ruijs, N.M. (2010, 18-20 February). Migrant Education in the Netherlands: Segregation and the Role of Weighted Student Funding. Migration, A World in Motion. Maastricht, The Netherlands.
- Mazza, J. (2010, December 16-17). Separating Risk in Education from Heterogeneity: a Semiparametric Approach. Presented at IX “Brucchi Luchino” Labour Economics Workshop. Univeristy of Padua. Italy.
- Oosterbeek H. (2010, 12 May) The impact of computer use on earnings in a developing country: Evidence from Ecuador. Quito.
- Oosterbeek, H. (2010, 25 June). Workshop Economics of Education.
- Catanzaro (5-9 July), Scale economies can offset the benefits of competition: Evidence from a school consolidation reform in a universal voucher system, Barcelona.
- Oosterbeek, H. (2010, 4 September) Scale economies can offset the benefits of competition: Evidence from a school consolidation reform in a universal voucher system, Munich)
- Oosterbeek H. (2010, 25 September and 6 October). Can provision of free school uniforms harm attendance? Evidence from Ecuador Amsterdam.(twice).
- Oosterbeek, H. (2010, 27 November) Gender peer effects in university: Evidence from a randomized experiment, Zurich.
- Plug, E. (2010, April 26-27). The Causal Effect of Parents' Schooling on Children's Schooling: A Comparison of Estimation Methods, ESF-NIH workshop "Early human development, socio-economic performance, and later-life health", Lund University, Sweden.
- Plug, E. (2010, April 26-27). The Causal Effect of Parents' Schooling on Children's Schooling: A Comparison of Estimation Methods Lund University Lund University, Sweden.
- Plug, E. (2010, April 29). The Causal Effect of Parents' Schooling on Children's Schooling: A Comparison of Estimation Methods, ENSAE Paris, France.
- Plug, E. (2010, June 10-12). Sexual Prejudice, Sexual Orientation and Segregation. ESPE Essen, Germany.
- Plug, E. (2010, June 22-23.). Sexual Prejudice, Sexual Orientation and Segregation. UCLS and IFAU workshop, Oregrund, Sweden.
- Plug, E. (2010, September 9). Sexual Prejudice, Sexual Orientation and Segregation. Linnaeus University Vaxjo, Sweden.
- Plug, E. (2010, September 16). Sexual Prejudice, Sexual Orientation and Segregation. SOFI Stockholm, Sweden.
- Plug, E. (2010, October 21). Sexual Prejudice, Sexual Orientation and Segregation. Stockholm University, Sweden.
- Plug, E. (2010, November 16). Sexual Prejudice, Sexual Orientation and Segregation. Maastricht University.
- Praag, C.M. van (2010, February 10). Returns to entrepreneurship. Invited seminar at DIW institute Berlin, Germany.
- Praag, C.M. van (2010, February 11-12). Returns to entrepreneurship. Invited workshop participant and speaker at workshop “Successful Entrepreneurship”, University of Copenhagen, Copenhagen, Denmark.
- Praag, C.M. van (2010, February 25-26). The entrepreneur's mode of entry: Business takeover or new venture start. Workshop organised by IZA and DIW, Bonn, Germany (presentation and discussion. Invited workshop participant.
- Praag, C.M. van (2010, May, 26). The entrepreneur's mode of entry: Business takeover or new venture star. Norway (Statistics Norway), Oslo. Invited seminar.
- Praag, C.M. van (2010, June, 15). The more business owners the merrier? The role of tertiary education. EIM, Zoetermeer. Invited workshop presentation.
- Praag, C.M. van (2010, August, 8-10). Returns to entrepreneurship. Academy of Management Meetings in Montreal, Canada.
- Praag, C.M. van (2010, August, 8-10). The entrepreneur's mode of entry: Business takeover or new venture start. Academy of Management Meetings in Montreal, Canada.

- Praag, C.M. van (2010, October, 18). Gender diversity and team performance: Evidence from a field experiment. London School of Economics. Invited seminar series.
- Praag, C.M. van (2010, October, 20). Entrepreneurship and role models. ERIM Rotterdam School of Management. Invited seminar series.
- Praag, C.M. van (2010, December 16-17). Gender diversity and team performance: Evidence from a field experiment. Lisbon / Carnegie Mellon Workshop “frontiers in entrepreneurship research: Entrepreneurship, innovation and human capital” Entrepreneurship and role models. Invited paper.
- Pradhan, M. (2010, June 2-3). Improving Educational Quality through Enhancing Community Participation: Results from a Randomised Experiment in Indonesia. CEPR Development Economics Symposium Joint with AMID Second Conference (FP7 Initial Training Networks). IIES, Stockholm University.
- Sloof, R. (2010). The effect of noise in a performance measure on work motivation: A real effort laboratory experiment, Seminar presentation, University of Groningen, the Netherlands.
- Witte, K. de (2010, February). Influential observations in frontier models, a robust non-oriented approach to the water sector. Aston University – Aston Centre for Critical Infrastructure Services (ACCIS) Birmingham.
- Witte, K. de (2010, March). Dropout prevention measures in the Netherlands, an evaluation, University of Groningen – TIER Workshop Groningen.
- Witte, K. de (2010, May). Assessing pupil and school performance by non-parametric and parametric techniques. Instituto Pedagógico Arubano (IPA) - Mebit opleiding, San Nicolas, Aruba.
- Witte, K. de (2010, May 16-19). Is big better? On scale and scope economies in the Portuguese water sector. 28th International CIRIEC Congress - Berlin, Germany.
- Witte, K. de (2010, June 24-25). Dropout from secondary education: all's well that begins well. Education Policies and Design - KU Leuven, Belgium, June.
- Witte, K. de (2010, September 2-4). Does School Time Matter? On the impact of compulsory education age on school drop out. EARIE 37th annual conference - University of Istanbul, Istanbul, Turkey.
- Witte, K. de (2010, September). Dropout from secondary education: all's well that begins well. School of Education KU Leuven Summer school on research in didactics, Leuven.
- Witte, K. de (2010, October 8-9). The regulator's fault? On the effect of regulatory changes on profits, productivity and prices in the Dutch drinking water sector. 9th International Conference on Applied Infrastructure Research – Technical University of Berlin, Germany.
- Witte, K. de (2010, November). To publish or not to publish? On the aggregation and drivers of research performance. Seminar on The Development and Utilization of Human Resources - Research Centre for Education and the Labour Market. Maastricht University.
- Witte, K. de (2010, November). Dropout prevention measures in the Netherlands, an evaluation. Economic Sessions ISRC - Nicis Seminar, Utrecht.

Other lectures on research

- Hartog, J. (2010). It takes two to tango, address on the occasion of the opening of the academic year, Rijksakademie van beeldende kunsten (National Academy of Arts), Amsterdam, January 2.
- Maassen van den Brink, H., (2010). Haags accent op talent. Een frisse blik op talentontwikkeling in het onderwijs. Den Haag, 6 januari. Rede uitgesproken in de Nieuwe Kerk. 2009, 10-09.
- Praag, C.M. van (2010, February 18). Ambitious entrepreneurs. ZZP Netwerk Nederland, Amstelveen. Key note lecture.

- Praag, C.M. van (2010, March 10). The passionate and ambitious entrepreneur. PZO Dag voor de Zelfstandig Ondernemer, Amsterdam. Key note lecture.
- Praag, C.M. van (2010, March 24). The entrepreneur of the future. MKB Lenteborrel, MKB Amsterdam, Tropenmuseum Amsterdam. Lecture.
- Praag, C.M. van (2010, April 20). Research in entrepreneurship. Honours Programme VU Amsterdam. Lecture.
- Praag, C.M. van (2010, May 7). Het MKB en de herziening van het belastingstelsel. SRA Nieuwspoort seminar MKB en Belasting.
- Praag, C.M. van (2010, May 11). The status of the entrepreneur. Amsterdam KvK meeting with young ambitious entrepreneurs. Lecture.
- Praag, C.M. van (2010, June 10). Grande Finale Kennisintensief Ondernemerschap, Brabant University. Lecture.
- Praag, C.M. van (2010, September 13). Lustrum Stichting Vrouwelijke Entrepreneurs (SVE), Utrecht. Lecture.
- Praag, C.M. van (2010, September 16). Discussion VSNU Cafe Dudoc on Innovation and Valorization (Harbers, Henneman, Noorda, Van Praag, Wientjes).
- Praag, C.M. van (2010, October 1). Trends and Success Indicators in Entrepreneurship (with Adjiedj Bakas), Brabant Center for Entrepreneurship. Lecture.
- Praag, C.M. van (2010, November 3). Samen Slimmer Groeien. Conference for high growth entrepreneurs, Port4Growth, Schiphol. Lecture.
- Praag, C.M. van (2010, December 10). Toelichting Preadvies “Ondernemerschap na de crisis”, Den Haag.

Organisational contributions to conferences, workshops and seminars

- Haan, M. de (2010). Co-organiser seminar series Labour, Region and the Environment, Tinbergen Institute, Amsterdam.
- Maassen van den Brink, H. (2010). Conferentie Productiviteit in het Onderwijs, . Organisatie ism SBO, Amsterdam, April.
- Maassen van den Brink, H. (2010). Workshop TIER, Den Haag, October
- Plug, E. (2010). Coordinator Tinbergen Institute theme Labour Economics.
- Plug, E. (2010). Organiser of the weekly Tinbergen Empirical Microeconomics Seminar Series
- Plug, E. (2010). Programme committee ESPE conference.
- Plug, E. (2010). Organiser ABEE 2011 Field Experiments in Economics.
- Praag, C.M. van (2010, Januari 19), ACE@VU organised MKB Amsterdam Verkiezingsdebat (the leaders of the Amsterdam political parties discussed SME related topics).
- Praag, C.M. van (2010, April 16), Conference on Social Entrepreneurship at KIT with ACE@VU.
- Praag, C.M. van (2010, June 28-29). International academic workshop “The development of Entrepreneurship capabilities” ACE co-organised with Indiana University.
- Pradhan, M. (2010) Organiser: Impact evaluation training and conference Measuring Results for Dutch Development Aid. Approaches and Future Directions. The International Institute of Social Studies and The Amsterdam Institute for International Development. Royal Tropical Institute, Amsterdam (October 4-7).

Participation in academic networks & fellowships

- Dominguez-Martinez, S. (2010). Junior Research Fellow Tinbergen Institute.
- Oosterbeek, H. (2010). Fellow Tinbergen Instituut, fellow Cesifo.
- Hartog, J. (2010) Fellow of Tinbergen Institute, AIAS, IZA, CESifo, CREAM, Member KNAW Royal Dutch Academy of Sciences.
- Praag, C.M. van (2010). Research Fellow Tinbergen Institute, Research Professor at the Max Planck Institute of Economics, Jena, Research Fellow IZA Institute for Labour Market Research, Bonn.

- Plug, E. (2010). Fellow Tinbergen Institute, Amsterdam; Fellow IZA, Bonn, Germany; Fellow UCLS Uppsala; Expert member Expert Network of Economics of Education (EENEE); Council member European Society for Population Economics.
- Siemens, F.A. von (2010). CESifo Research Network Affiliate.
- Sloof, R. (2010). Research fellow at the Tinbergen Institute, Fellow of the Amsterdam Center for Law and Economics.

Editor or member of editorial board

- Hartog, J. (2010). Member editorial board, *Economics of Education Review*
- Oosterbeek, H. Member of editorial boards *Economics of Education Review* and *Effective Education*
- Praag, C.M. van (2010). Editor *Small Business Economics*

Referee activities

- Buser, T. (2010). Referee for *Journal of Economic Behaviour and Organisation, National Science Foundation (US)*.
- Haan, M. de (2010). Referee for *Economics of Education Review*.
- Hartog, J. (2010). Referee for *American Economic Review, European Economic Review, Labour Economics, Economics of Education Review, Journal of Economic Psychology, Empirical Economics, Journal of Population Economics*.
- Hsieh, C. (2010). Referee for *Strategic Management Society* (conference).
- Mazza, J. (2010). Referee for *Labour Economics*.
- Oosterbeek, H. (2010) Referee for *Review of Economic Studies, Quarterly Journal of Economics, Journal of Labor Economics, Labour Economics, Economics of Education Review, Journal of Development Economics*.
- Plug, E. (2010). Referee for *American Economic Review, Centraal Plan Bureau, Journal of Applied Econometrics, Journal of Economics Surveys, Journal of Health Economics, Journal of Human Resources, Journal of Labor Economics, Journal of Labour Research, Labour Economics, National Science Foundation, Oxford Bulletin of Economics and Statistics, Quarterly Journal of Economics, Review of Economic Studies, Scandinavian Journal of Economics, Social Problems, Southern Economic Journal*.
- Van Praag, CM (2009). Referee for *Journal of Applied Econometrics, Journal of Business Venturing, Journal of Economic Behaviour and Organisation, Journal of Labor Economics, Labour Economics, Small Business Economics, Journal of Economic Psychology, Journal of Population Economics, Journal of Economics and Management Strategy, Economic Journal*
- Siemens, F.A. von (2010). Referee for *Economic Inquiry, Experimental Economics, Games and Economic Behaviour, American Economic Review*.
- Sloof, R. (2010). Referee for *Experimental Economics, Games and Economic Behaviour, Journal of Economic Behaviour and Organisation, Rand Journal of Economics*.
- Witte, K. de (2010). Referee for *European Journal of Operational Research, Public Choice, Annals of Operations Research, Journal of Productivity Analysis, Public Management Review, Operations Research, Research Policy, R&D Management, Journal of Environmental Management, Journal of Economic Surveys, Journal of Regulatory Economics, Journal of Development, Journal of the Operational Research Society*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Oosterbeek, H: Member of Ph.D. committee of Chris Bojke, Microeconomic essays in health, sports and education economics, November 2010, Rijksuniversiteit Groningen.

Witte, K. de (2010) Member of ‘International Advisory Board’ of International Journal of Productivity Management and Assessment Technologies

Research contributions in the media

Praag, C.M. van (2010). Various.

Witte, K. de (2010, May 11). Nicis Institute Newsletter Voortijdige schoolverlaters bevinden zich in een vicieuze cirkel. p. 1.

Grants, prizes and honours

Parker, C.S. & Praag, C.M. van (2010). Publication in Selected Best Papers of the Academy of Management (2010). The entrepreneur's mode of entry: Business takeover or new venture start.

Plug, E., Leuven, E. & Rønning, M. (2009-2011). *Socio-economic determinants of cancer: Twin, adoptee and family based evidence from the Cancer Registry of Norway*. The Research Council of Norway. 3,300,000 NOK

Plug, E., Lundborg, P. & Wurtz Rasmussen, A. (2011-2012) *Fertility Effects on Labor Supply: IV Evidence from IVF Treatments*. Institute for Labour Market Policy Evaluation (IFAU). 405,000 SEK.

Praag, C.M. van (2010, November). Brabant Center for Entrepreneurship award for contribution to research and education in entrepreneurship.

Praag, C.M. van (2010, November). ACE nominated for the European Enterprise Award.

Witte, K. de (2010, March). Edgard Milhau prize for doctoral thesis - CIRIEC (International Centre of Research and Information on the Public, Social and Cooperative Economy; Berlin – 10,000 euro.

Witte, K. de (2010, October). Hans-Jürgen-Ewers-Prize for applied research in Infrastructure Economics 2010. Awarded for doctoral thesis - Berlin University of Technology – 2,500 euro.

Witte, K. de (2010, November). A-Status Subsidy Maastricht University – 25,000 euro.

Various activities

Hartog, J. (2010). September-October, Visiting Professor, Aarhus School of Business.

Hartog, J. (2010). Member Conseil Scientifique de l'Instance Nationale d'Evaluation, Royaume du Maroc.

Hartog, J. (2010). Member, jury Christiaan Huygens Wetenschapsprijs 2010, KNAW.

Hartog, J. (2010). Member LOWI Landelijk Orgaan Wetenschappelijke Integriteit (National Board Scientific Integrity).

Praag, C.M. van (2010). Adviseur Studiecommissie Belastingstelsel (vrz Prof dr. Weeghel, S. van) van het Ministerie van Financien met betrekking tot het thema ‘Bevorderen ondernemerschap en fiscaliteit’.

Praag, C.M. van (2010). Voorzitter Commissie Wetsevaluatie Kamers van Koophandel, Ministerie van Economische Zaken.

Praag, C.M. van (2010). Extern lid van de SER commissie voor het behandelen van de adviesaanvraag positie zelfstandige ondernemers.

Praag, C.M. van (2010). Member of the Scientific Committee of the “Federatie Zakenvrouwen”.

Praag, C.M. van (2010). Member of the Advisory Committee of UvA/AMC Bureau Kennistransfer

Praag, C.M. van (2010). Founding academic Director of the Amsterdam Center for Entrepreneurship.

Praag, C.M. van (2010). Member of the Supervisory Board of APG Group NV.

Praag, C.M. van (2010). Member of the Board of SEO Economisch Onderzoek.

Human Capital – Hartog
Economics

- Praag, C.M. van (2010). Member of the Curatorium of the Chair “Ethnic entrepreneurship”, IMES UvA (Sponsored by VNO NCW).
- Praag, C.M. van (2010). Member of the Jury of the Science Park Amsterdam Ideas Competition.
- Praag, C.M. van (2010). Appointed Crown member of the Socio Economic Council of the Government (SER).
- Plug, E. (2010). Committee member Research Priority Area Behavioural Economics.
- Sloof, R. (2010). Referee for the British Academy to assess application for research grant.

Human Capital – Hartog
Economics

CHAPTER 12: HISTORY & METHODOLOGY OF ECONOMICS: THEORIZING, MODELING AND POLICY APPLICATION

Programme directors: Prof.dr. J.B. Davis & dr. M.J. Boumans
Department: Economics
METIS-code: uva/fee/res/hme/prog
JEL-classification: B (B0-B5)
Website: www.ase.uva.nl/hme
Starting date programme: 1998
VSNU-scores 2001-2010: Quality: 3.5, Productivity: 4, Relevance: 3, Viability: 3.5

12.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Blaug, M.	prof dr	hgl	0,05	0,03	-	-	AE	1
Boumans, M.J.	dr ir	uhd	0,50	0,50	0,50	0,50	AE	1
Damsma, D.F.	drs	oz	0,58	-	-	-	AE	1
Damsma, D.F.	drs	docent	-	0,00	0,00	-	AE	1
Damsma, D.F.	drs	guest	-	-	0,00	0,00	AE	1
Davis, J.B.	prof dr	hgl	0,17	0,08	0,25	0,25	AE	1
Fernandes da Mata, T.J.	dr	ud	-	0,21	0,50	0,29	AE	1
Heukelom, F.	dr	Ph.D.	0,60	0,08	-	-	AE	1
Jonge, J.P.R. de	dr	guest	0,00	0,00	-	-	AE	1
Jolink, A.	prof dr	hgl	0,00	0,00	0,10	0,11	AE	3
Kotan, M	drs	oz	0,70	0,70	-	-	AE	1
Kuiper, E.	dr	guest	-	0,00	-	-	AE	1
Kuiper, E.	dr	postdoc	0,58	-	-	-	AE	2
Maas, H.B.J.B.	dr	uhd	0,40	0,27	0,20	0,60	AE	1
Maas, H.B.J.B.	dr	uhd	-	0,20	0,40	-	AE	2
Masaoutis, A.	msc	guest	-	-	-	0,00	AE	1
Morgan, M.S.	prof dr	hgl	0,05	0,05	0,05	0,05	AE	1
d’Onofrio, F.	msc	Ph.D.	-	0,30	0,60	0,60	AE	2
Reuten, G.A.	dr	uhd	0,50	0,50	0,17	0,02	AE	1
Schliesser, E.S.	dr	guest	0,00	0,00	0,00	-	AE	1
Svorencik, A.	msc	Ph.D.	-	0,30	0,60	0,60	AE	2
Went, R.	dr	guest	0,00	0,00	0,00	0,00	AE	1
Total 1st flow of funds			3,55	2,42	1,67	1,71		
Total 2nd flow of funds			0,58	0,80	1,60	1,20		
Total 3rd flow of funds			0,00	0,00	0,10	0,11		
Total 1st f.o.f. excl. Ph.D.'s			2,95	2,34	1,67	1,71		
Total all flows of funds			4,13	3,22	3,37	3,02		
Ph.D. students			0,60	0,68	1,20	1,20		

12.2 PROGRAMME DESIGN

This research programme investigates the mutual connections in economics between theorizing, modelling, and policy application, in order to explain research strategies and methods of explanation in economics. In this investigation, the research group employs a methodological approach using a theory-historical perspective. This involves examining changing research strategies and methods of explanation as employed in the history of economics up to the present.

We investigate current economics as the product of past economics, and study past economics to understand the development of current economics. For both our study of current economics and past economics we focus on the research strategies and methods of explanation of economists. We particularly focus on current economics because of the special methodological issues involved in its strategies and methods of explanation (see below), and because of its rapid evolution and change in recent decades.

A central characteristic of recent economics is a renewed interest in the relation between economic behaviour and social structure, as reflected in a succession of new views and ideas about how economic behaviour and social structure are mutually influencing. These new currents in theory go hand in hand with new ideas about modelling, measurement, and investigative methods appropriate to economics. In line with the research group's earlier research into models as instruments that mediate between theory and data, we investigate how these new techniques and methods are used to further represent, measure, and intervene in the economy.

Changes in economic theorizing and modelling have been accompanied by new thinking about the scope and content of economic policy. This has expanded the range of norms and values at work in the applied and policy domains in economics, and also produced changes in thinking about the nature of political decision-making in regard to the economy and to economics as a science. The linkages between economic theorizing, modelling, and measurement to economic policy are an explicit concern in the programme.

As a meta-study of economics, our investigations should serve economic researchers by pointing out the implications and consequences of various research strategies and methods of explanation in different sub-fields of economics as they relate to the discipline of economics as a whole. In addition, we also aim to produce research that clarifies to the users of economic science in the public domain what current economics involves and how this applies to economic policy and political decision-making.

Theorizing, modeling and policy application

Keywords

- Research strategies and methods of explanation in economics
- Current economics as the product of past economics
- Economic behaviour in relation to social structure
- Models as instruments mediating between theory and data
- Economic policy, norms, and values
- Methodological approach with a theory-historical perspective

12.3 PROGRAMME EVALUATION

Tiago Mata received the best teacher award for the faculty, and the group's teaching was generally high rated by students. The members of the group remained active in scholarly publication in the top outlets in their field. A number of books were published, including a

new text book by Boumans and Davis, *Economic Methodology: Understanding Economics as a Science*, based on many years of teaching the Economic Methodology course. The group continued to be influential in scholarly editing in our field with Marcel Boumans co-editing *Journal of the History of Economic Thought* and John Davis co-editing *Journal of Economic Methodology*. The group's members are also on a number of editorial boards. Also, two Ph.D. students are expected to be promoted in June 2011 (Maarten Biermans and Ricardo Crespo). Both Marcel Boumans and John Davis were renewed as Fellows of the Tinbergen Institute for 2011-2016, based on scholarly output and research ranking.

12.4 RESOURCES AND FUNDING

H. Maas earned a NWO Vidi research project: *Observations in economics, historically considered*, budget Euro 405.600, 2008-2012.

12.5 OUTPUT

Key publications

- Boumans, M.J. (2010). The problem of passive observation. *History of Political Economy*, 42, (1), 75-110.
- Davis, J.B. (2010). *Individuals and Identity in Economics*, Cambridge University Press.
- Maas, H. (2010). *Sorting Things Out: The Economist as an Armchair Observer*. In: Daston, L. and Lunbeck, E. (eds), *Histories of Scientific Observation*. University of Chicago Press.

Forthcoming

- Boumans, M.J., A. Dupont-Kieffer and D. Qin (eds.) (2011). *Histories on Econometrics. History of Political Economy Annual Supplement to Vol. 43*. Duke University Press.
- Boumans, M.J. and A. Dupont-Kieffer (2011). A history of the histories of econometrics. In: *The History of Econometrics*, eds M. Boumans, A. Dupont-Kieffer and D. Qin, *History of Political Economy Annual Supplement to Vol. 43*. Duke University Press.
- Boumans, M.J. (2011). *Vertrouwen in economische modellen*. In: *Zeker weten?! – Wetenschappelijk gezag ter discussie*, eds H. Dijkstra and R. Hagendijk. Van Genneep.
- Boumans, M.J. (2011). *Modeling strategies for measuring phenomena in- and outside the laboratory*. Proceedings EPSA conference, eds H. de Regt, S. Okasha and S. Hartmann. Springer.
- Boumans, M.J. *Measurement in economics*. In: *Handbook of the Philosophy of Science: Philosophy of Economics*, Vol. 13, Volume ed U. Mäki, pp. 333-60. Elsevier.
- Damsma, D.F. (2011). *Set Theory and Geometry in Hegel*. In: Arndt, Andreas et al (eds.) *Hegel-Jahrbuch*. Berlin: Akademie-Verlag GmbH.
- Davis, J. (2011). "Kenneth Boulding as a Moral Scientist," *Interdisciplinary Economics: Kenneth E. Boulding's Engagement in the Sciences*, eds. S. Kesting and W. Dolsma, London: Routledge.
- Davis, J. and D.W. Hands (2011). *The Elgar Companion to Recent Economic Methodology*, Cheltenham: Edward Elgar.
- Mata, T. (2011). *Trust in Independence: The Identities of Economists in Business Magazines, 1945-1970*. *Journal of the History of the Behavioural Sciences*.
- Mata, T. *Transgressing the boundaries: Towards a transformative hermeneutics of behavioural economics*. *KRISIS: Journal for Contemporary Philosophy*.

Mata, T. (2011) Invasion of the bloggers - a preliminary study on the demography and content of the economic blogosphere. The Elgar Companion to Recent Economic Methodology. D. W. Hands and J.B. Davis (eds.). Edward Elgar.

Publications in numbers

<i>History & Methodology of Economics</i>				2010
1) Academic publications	a) in refereed journals	A	2	
		B	1	
		Other	3	6
	b) in other journals		6	6
		c) book chapters	A	1
		B	0	
		Other	3	4
	Total			16
	2) Books		A	2
		B	0	
		Other	1	3
3) Ph.D. theses			0	0
4) Professional publications			0	0
5) Popular publications			1	1
6) Working papers			2	2
Total				22

Academic publications (excluding publications in/of books) – refereed

A

Boumans, M.J. (2010). The problem of passive observation. *History of Political Economy*, 42, (1), 75-110.

Mata, T. (2010). The enemy within: Academic freedom in 1960s and 1970s American social sciences. *History of Political Economy*, 42, (5): 77-104.

B

Davis, J.B. (2010). Neuroeconomics: Constructing identity. *Journal of Economic Behaviour and Organisation*, 76, 574-583.

Other

Baden-Fuller, C. & Morgan, M.S. (2010). Business models as models. *LRP: Long Range Planning*, 43, (2), 156-71.

Davis, J.B. (2010). Uncertainty and identity: A post Keynesian approach. *Erasmus Journal for Philosophy and Economics*, 3, (1), 33-49.

Maas, H. (2010). Rekenmeesters, heelmeeesters, en vogelaars: De vinger aan de pols van de economie. *Krisis, e-tijdschrift voor filosofie*, December.

Academic publications (in/of books) – refereed

A

Boumans, M.J. and Davis, J.B. (2010). *Economic Methodology: Understanding Economics as a Science*. Palgrave-Macmillan.

Davis, J.B. (2010). *Individuals and Identity in Economics*. Cambridge University Press.

Maas, H. (2010). Sorting Things Out: The Economist as an Armchair Observer. In: Daston, L. and Lunbeck, E. (eds), *Histories of Scientific Observation*. University of Chicago Press.

Other

- Davis, J.B. (2010). The Individual in Recent Economics: Internalist and Externalist Conceptions. In: Parisi, D.F. and Solari, S. (eds), *Religion and Humanism in the History of Economic Thought*. Milan: Franco Angeli.
- Maas, H. (2010). *Spelregels van Economen: De ontwikkeling van de economiebeoefening*. Den Haag: Boom Lemma.
- Mata, T. (2010). Os instrumentos e usos dos economista. In: Jose Maria Castro Caldas e Vitor Neves (eds), *A Economia sem Muros*. Coimbra: Almedina.
- Morgan, M.S. (2010). ‘Voice’ and the Facts and Observations of Experience. In: Gonzales, W.J. (ed), *New Methodological Perspectives on Observation and Experiment*. A Coruña: Netbiblio.

Academic publications (excluding publications in/of books) – non-refereed

- Boumans, M.J. (2010). Review of: S.E. Kellert, *Borrowed Knowledge: Chaos Theory and the Challenge of Learning across Disciplines*. *History and Philosophy of the Life Sciences*, 32, (4), 540-542.
- Chang, H. Boumans, M.J., Boon, M. and Ankeny, R. (2010). Second Biennial Conference of the Society for Philosophy of Science in Practice (University of Minnesota, 18-20 June 2009), with, *Journal for General Philosophy of Science*, 41, 233-235.
- Davis, J.B. (2010). Review: L. Randall Wray and Mathew Forstater, eds., *Keynes and Macroeconomics after 70 Years: Critical Assessments of The General Theory*, January, *EH.NET*.
- Davis, J.B. (2010). Review: *Economics, Culture and Social Theory*, by William A. Jackson, *Journal of Cultural Economics*, 34, (3), 237-240.
- Maas, H. (2010). Review: Richard Bronk: *The Romantic Economist: Imagination in Economics* (CUP 2009), *Economics and Philosophy* (June), 247-254.
- Mata, T (2010). Comment: *Fractals in Economic Journalism*. *History of Political Economy*.

Academic publications (working- and discussion papers)

- Davis, J.B. (2010). *Maki’s Economics Imperialism*. Marquette University Economics working paper series.
- Mata, T and Scheiding, T. (2010). “The Only Disinterested Source of Funds”: Embedded Science, Lobbying, and the NSF’s Patronage of Social Science in the 1980s. SSRN Working Paper n. 1653482.

Popular publications

- Mata, T. (2010). O Sangue que foi dadaiva. Publico. *Economia*, 20 Junho: 24.

Contributions to academic conferences, workshops and seminars

- Boumans, M.J. (2010, 27 March). Economics as a modern science: early postwar adoption of the computer in economics. 14th annual European Society for the History of Economics meetings, Amsterdam.
- Boumans, M.J. (2010, 12 April). Discussion of ‘Ethics of modeling in engineering design’ by S. Swart. Erasmus Institute for Philosophy and Economics. Rotterdam. Discussant.
- Boumans, M.J. (2010, 19 April). Empirical models in the social sciences. Workshop Modelling in Engineering and the Sciences. Dutch-Flemish Network for Philosophy of Science and Technology. Ravenstein. Invited lecture.
- Boumans, M.J. and M.S. Morgan. (2010, 24 April). Chart session on the history of the histories of econometrics. The History of Econometrics. History of Political Economy Conference. Duke University, Durham. US.

- Boumans, M.J. (2010, 27 April). Discussion of ‘Zeker weten in de economie’ by G. de Vries. Zeker weten?! Wetenschapsbeoefening en technologische samenleving. University of Amsterdam. Discussant.
- Boumans, M.J. (2010, May 31 – June 4). Understanding and the Aims of Science. Lorentz Center Workshop. Invited participant.
- Boumans, M.J. (2010, 20 August). The history of economics as a history of tools and techniques. Mini-Symposium on the History of Postwar Economics, 20-21 August 2010. University of São Paulo. Brazil. Invited lecture.
- Boumans, M.J. (2010, 21 August). Roundtable on the History of Postwar Economics. Mini-Symposium on the History of Postwar Economics, 20-21 August 2010. University of São Paulo. Brazil. Invited participant.
- Boumans, M.J. (2010, 20-23 June). 11th annual Summer Institute for the Preservation of the History of Economics, University of Richmond. Invited paper presentation and full participation.
- Boumans, M.J. (2010, 26 June). Economics as a hard science: Early postwar adoption of the computer in economics. History of Economics Annual Conference, Syracuse, NY.
- Boumans, M.J. (2010, 14 September). Measurement outside the laboratory. Eindhoven Center for Innovation Studies, Philosophy and Ethics seminar. Eindhoven University of Technology. Invited speaker.
- Boumans, M.J. (2010, 23 September). Mathematics as quasi-matter to build models as instruments. ESF-PSE Workshop on ‘The Debate on Mathematical Modeling in the Social Sciences’, 23-24 September 2010. University of A Coruña. Spain. Invited Lecture.
- Davis, J.B. (2010, 22 October). A Social Identity Conception of the Individual. Revival of Political Economy. Coimbra, Portugal.
- Davis, J.B. (2010, 9-10 July). The Change in Sraffa’s Philosophical Thinking. New Perspectives on the Work of Piero Sraffa, Cambridge Journal of Economics. Cambridge Invited speaker
- Davis, J.B. (2010, July 9-10). Introduction, G.C. Harcourt’s The Structure of Post-Keynesian Economics. New Perspectives on the Work of Piero Sraffa, Cambridge Journal of Economics. Cambridge
- Davis, J.B. (2010, 28 June – 1 July). Health Care Policy: Normative Foundations. 13th World Congress of Social Economics, Montreal,
- Davis, J.B. (2010, 28 June). Teaching Recent History of Economics. History of Economics Society, Syracuse, NY.
- Davis, J.B. (2010, 26 June). The emergence of agent-based modeling in economics: Individuals come to bits. History of Economics Society, Syracuse, NY.
- Davis, J.B. (2010, January). The Emergence of Agent-based Modeling in Economics. History of Economic Society/American Economic Association, Atlanta.
- D'onofrio F. (2010, 26 March). From hectares to tons: geographical maps, cadastre, and agricultural production in Italian agricultural statistics 1910-1929. 14th annual European Society for the History of Economics meetings, Amsterdam, March 25-27, 2010
- Maas, H. (2010, 16 October). Seneca to witness: How to write history in the face of its makers? One day conference “From History of Economics to Histories about Economics,” Duke University. (paper with Andrej Svorencik).
- Maas, H. (2010, 30 June). Vom Nutzen und Nachteil der Modelle für das Leben., 2nd SRW-Hendrik Muller Zomer Seminaar: ‘Een Crisis in Verhalen’. ISGW-Leusden. Invited lecture
- Maas, H. (2010, 28 April). De Nachttrein en de Dagtrein. Annual conference Landelijke Werkgroep Economie Onderwijs, Vught. Invited lecture
- Maas, H. and F. Den Butter (2010, 25 March). Holtrop’s Dutch monetarism versus Tinbergen’s modelling approach. 14th annual European Society for the History of Economics meetings, Amsterdam.
- Maas, H. (2010, 5 February). Putting Economics in its Place. Duke University. Invited lecture

- Maas, H. (2010, 29 January). Regimes of Knowledge Making in Victorian Political Economy. University of Toronto. Invited lecture
- Mata, T. (2010). What Doesn't Kill You Makes You Stronger: Public Image, the State, and Research in Economics, 1970-1985. Center for the History of Political Economy, Duke University, Durham, USA.
- Mata, T. (2010). The Only Disinterested Source of Funds' Embedded Science, Lobbying, and the NSF's Patronage of Social Science in the 1980s. History of Science Society meetings, Montreal, Canada. Session sponsored by the Forum for the History of the Human Sciences. And at Ninth Annual Meeting of the Science and Democracy Network, Royal Society Kavli Center, UK. (same title, different version of the paper)
- Mata, T. (2010). Radical Imagination in Economics: Academia, the Movement and a Science of Conflict. Department of Science and Technology Studies, Virginia Institute of Technology, USA.
- Morgan, M.S. (2010, 15-17 March). Strangelovean Sciences, Workshop. Max Planck Institute for History of Science, Berlin, Germany. Invited Wrap-up Commentary.
- Morgan, M.S. (2010, 4 June). The Inferential Scope of Facts. Conference: Material Culture as Evidence, Reading University, UK. Invited Speaker.
- Morgan, M.S. (2010, 17-18 June). Modelling in the Social Sciences: Interdisciplinary Comparison, Helsinki Collegium of Advanced Studies, Helsinki, Finland. Wrap-up Commentary.
- Morgan, M.S. (2010, 20-21 August). Modelling as a Method of Enquiry. Mini-Symposium on the History of Post-War Economics, University of São Paulo, São Paulo, Brazil. Invited Speaker and & Panel Member at Round Table Discussant.
- Morgan M.S. (2010, 4-7 November). Recognising Glass Ceilings and Sticky Floors. History of Science Society, Montreal, Canada. Distinguished Lecture to Forum for the History of Human Sciences.
- Morgan, M.S. (2010, 4-6 November). Case Studies: One Observation or Many? Philosophy of Science Association Conference, Specially Selected Symposium: Is it the Case? Epistemological Reflections on Case Studies. Montreal, Canada. Speaker (and Symposium joint organiser)
- Morgan, M.S. (2010, 11-12 November). Modern Economists: Technocrats or Dangerous Men. Opening Conference: Communicating Across Cultures: Science, Medicine and Society, University of South Carolina, USA. Panel Contribution.
- Morgan, M.S. (2010, 11-12 November). Recognising Glass Ceilings and Sticky Floors, Opening Conference: Communicating Across Cultures: Science, Medicine and Society, University of South Carolina, USA. Keynote Speaker.
- Morgan, M.S. (2010, 15 December). Immutable Mobiles: Planning for the Post-Colonial Economy, History of Science Colloquium, Princeton University, Princeton, USA. Colloquium Speaker.
- Svorenčik, A. (2010, 26 June). Experimental explorations of the size effect. History of Economics Society Annual Meeting. Syracuse, USA. Presentation.
- Svorenčik, A. (2010, 4 September). Experimental explorations of the size effect. 13th Summer school on Economic History, Philosophy, and History of Economic Thought. Presentation.
- Svorenčik, A & Maas, H. (2010, 15 October). Seneca to witness: How to write history in the face of its makers? 2010 HOPE Fall Conference. Presentation.

Other lectures on research

- Boumans, M.J. (2010, 13 December). The Social Sciences: The Case of Economics. Course 'Science and Pseudo-Science'. Eindhoven University of Technology. Visiting lecture.
- Mata, T. (2010). Narrativise of Crisis. SWR-Hendrik Muller-seminaar, "Een Crisis in Verhalen". Internationale School voor de Wijsbegeerte, Leusden, Netherlands.

Organisational contributions to conferences, workshops and seminars

- Boumans, M.J., A. Dupont-Kieffer and D. Qin. (2010, 23–25 April). The History of Econometrics. History of Political Economy Conference. Duke University, Durham. US.
- Davis, J.B. 2010. Vice-president, European History of Economics Society
- Davis, J.B. Scientific committee and local organising committee, 14th annual European Society for the History of Economics meetings, Amsterdam, March 25-27, 2010
- Maas, H. (2010, 28-29 May). Witness Seminar: the emergence of experimental economics, KNAW, Amsterdam
- Maas, H. (2010, 25-27 March). European Society for the History of Economic Thought Annual Conference: The practices of Economics (Keynote lectures by prof. Charles Plott and Prof. Karin Knorr-Cetina) (sponsored by KNAW , DNB, Tinbergen Institute, Amsterdam municipality, 15.000 Euro).
- Mata, T. (2010). Member of the organising committee of the 14th annual meeting of the European Society for the History of Economic Thought, “The Practices of Economists”, Amsterdam.
- Mata, T. (2010). Member of the organising committee of the 4th History of Recent Economics Conference, Paris, France.
- Mata, T. (2010). Organiser of one day workshop “Recent Historiographical Trends in the History of Economics”, Duke University, USA.
- Morgan, M.S. (2010, 17-18 June). Modelling in the Social Sciences; Interdisciplinary Comparison. Helsinki Collegium of Advanced Studies, Helsinki, Finland.
- Svorenčik, A. (2010). Organiser of the Witness Seminar on the Emergence of Experimentation in Economics. Amsterdam.

Participation in academic networks & fellowships

- Boumans, M.J. Fellow Tinbergen Institute.
- Boumans, M.J. Fellow NAKI.
- Boumans, M.J. Member of team (C) Philosophy of the Cultural and Social Sciences of The Philosophy. of Science in a European Perspective, an ESF Research Networking Programme (2008-2013).
- Boumans, M.J. Member organisation committee, Society for Philosophy of Science in Practice.
- Boumans, M.J. Board member, Dutch-Flemish Network for Philosophy of Science and Technology.
- Boumans, M.J. Research associate, LSE Centre for Philosophy of the Natural and Social Science.
- Davis, J.B. Fellow Tinbergen Institute.
- Mata, T. (2008-present). Science and Democracy Network.
- Morgan, M.S. (2010, September-December). Shelby Cullom Davis Fellow, Project Group on Authority and Legitimation, Princeton University, USA.

Editor or member of editorial board

- Boumans, M. Co-editor, *Journal of the History of Economic Thought*.
- Boumans, M. Associate editor, *The Journal of Economic Methodology*
- Boumans, M. Member scientific committee, *Revue de Philosophie Économique*.
- Boumans, M. Member advisory board, *Erasmus Journal for Philosophy and Economics*.
- Davis, J.B. Co-Editor, *Journal of Economic Methodology*
- Davis, J.B. Editor, Advances in Social Economics book series, Routledge.
- Davis, J.B. Appointed to the Editorial Board of *Oeconomia*
- Mata, T. (2010). Member of Editorial Board of *Journal of Economic Methodology*.
- Morgan, M.S. (2010). Member of Editorial Board of *Philosophy of Science*

- Morgan, M.S. (2010). Member of Editorial Board of *Journal for the History of Economic Thought*
Morgan, M.S. (2010). Member of Editorial Board of *Journal of Economic Methodology*
Morgan, M.S. (2010). Member of Editorial Board of *History of Political Economy*

Referee activities

- Boumans, M.J. (2010). Referee for *European Journal for Philosophy of Science*, *European Journal of the History of Economic Thought*, *Journal of Economic Methodology*, *London School of Economics and Political Science*.
Davis, J.B. (2010). Referee for *Oxford University Press*, *Stanford University Press*, *Routledge*, *Palgrave*, *Cambridge Journal of Economics*, *Review of Social Economy*, *Economic Bulletin*, *History of Economic Ideas*, *European Journal for the History of Economic Thought*, *Journal of Human Development and Capabilities*.
Maas, H. (2010). Referee for *Canadian Research Council*, *Routledge*, *History of Political Economy*, *Journal of Economic Methodology*, *Journal of the History of Economic Theory*, *Economics and Philosophy*, *Centaurus*, *Science in Context*.
Mata, T. (2010). Referee for *History of Political Economy*, *Journal of the History of Economic Thought*, *Erasmus Journal of Philosophy and Economics*, *European Journal of the History of Economic Thought*.
Morgan, M.S. Referee for *European Journal for Philosophy of Science*; *Economics and Philosophy*; *Philosophy of Science*; *Journal of Global History*, *History of Human Sciences*, *History of Political Economy*, *US-National Science Foundation*.
Svorenčik, A. (2010). Referee for *Journal of the History of Economic Thought*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Boumans, M. (2010). Member promotion committee of K. Eigner. Promotor Prof. H. Radder and Co-promotor H. de Regt. Vrije Universiteit.
Mata, T. (2010) Member of the Joseph Spengler Book Prize Committee of the History of Economics Society.
Morgan, M.S. (2010). Member, Scientific Board, LichtenbergKolleg, Georg-August-Universität, Göttingen
Morgan, M.S. (2010). Member, British Academy, Economics and Economic History Section Committee.
Morgan, M.S. (2010). Member, British Academy Publications Committee.

Grants, prizes and honours

- Davis, J.B. The Methodology of Systematic Risk. Institute for New Economic Thinking, \$30,000.
Maas, H. Professeur invité, Centre d’Economie de la Sorbonne, Paris 1 Panthéon-Sorbonne, March 2011.
Maas, H. Visiting Scholarship Max Planck Institute für Wissenschaftsgeschichte, Berlin, 15 April – 30 June 2010.
Mata, T. (2010, January). Van der Schroeff Award for Best Teacher at FEB, UvA.
Morgan, M.S. (2009-2012). British Academy Wolfson Research Professorship: “Re-Thinking Case Studies Across the Social Sciences”.

CHAPTER 13: EXPERIMENTAL & POLITICAL ECONOMICS (CREED)

Programme Director Prof.dr. F.A.A.M. van Winden
Department: Economics
METIS-code: uva/fee/res/exp/prog
JEL-classification: D7, D8
Web-address: www.ase.uva.nl/creed
Starting date programme: 1991
VSNU-scores 2001-2007: Quality: 5, Productivity: 4.5, Relevance: 5, Viability: 4.5

13.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Abbink, K.	dr	uhd	0,50	0,50	0,33	-	AE	1
Bault, N.G.J.	dr	postdoc	-	-	-	0,42	AE	1
Boone, J.	prof dr	oz	0,42	0,42	0,28	-	AE	2
Broek, E.M.F. van den	drs	Ph.D.	0,60	0,40	-	-	AE	1
Broek, E.M.F. van den	drs	oz	-	0,00	-	-	AE	1
Dogan, G.	dr	ud	-	-	-	0,21	AE	1
Elliot Ash, T.		guest	-	-	0,00	-	AE	1
Fosgaard, T.	MSc	guest	-	-	0,00	-	AE	1
Garcia Gallego, J.A	dr	guest	-	0,00	0,00	0,00	AE	1
Groot Ruiz, A.W.	mSc	Ph.D.	0,50	0,60	0,60	0,60	AE	2
Haan, Th. de,	mSc	Ph.D.	-	0,20	0,60	0,60	AE	1
Hu, A.	mSc	Ph.D.	0,60	0,60	0,60	0,35	AE	2
Kantaroglu, G.		guest	-	-	0,00	-	AE	1
Kocher, M.G.	dr	oz	0,50	-	-	-	AE	3
Krawczyk, M.	dr	Ph.D.	0,60	0,60	0,10	-	AE	3
Le Lec, F.	dr	oz	0,75	0,25	-	-	AE	3
Linde, J.	drs	Ph.D.	-	0,18	0,60	0,60	AE	1
Michelucci, F.	dr	postdoc	1,00	1,00	0,17	-	AE	2
Offerman, T.J.S.	prof dr	hgl	0,40	-	-	-	AE	2
Offerman, T.J.S.	prof dr	hgl	0,25	0,50	0,50	0,50	AE	1
Onderstal, A.M.	dr	ud	0,42	0,42	0,28	-	AE	2
Onderstal, A.M.	dr	ud	-	-	0,07	0,20	AE	1
Pelloux, B.	mSc	Ph.D.	0,20	0,60	0,40	0,20	AE	1
Pelloux, B.	mSc	guest	-	-	-	0,00	AE	1
Schram, A.J.H.C.	prof dr	hgl	0,50	0,33	0,17	0,50	AE	1
Schimizu, K.	dr	guest	-	-	0,00	0,00	AE	1
Sonnemans, J.	prof dr	hgl	0,50	0,50	0,50	0,50	AE	1
Solaz Santos, H	dr	guest	-	0,00	-	-	AE	1
Strassmaier, C.	dr	guest	-	0,00	-	-	AE	1
Trautmann, S.T.	mSc	guest	0,00	0,00	-	-	AE	1
Tsutsui, Y.		guest	-	-	-	0,00	AE	1
Tyszler, M.	mSc	Ph.D.	-	0,20	0,60	0,60	AE	1
Ule, A.	dr	oz	0,54	0,78	0,60	0,75	AE	2
Veldhuizen, R.R. van	mSc	Ph.D.	-	-	0,20	0,60	AE	1

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Veelen, C.M. van	dr	oz	0,67	-	-	-	AE	2
Veelen, C.M. van	dr	ud	0,17	0,50	0,50	0,50	AE	1
Veen, A. van der	drs	Ph.D.	0,60	0,60	0,60	0,60	AE	2
Vieider, F.M.	msc	guest	0,00	0,00	-	-	AE	1
Wakker, P.P.	prof dr	guest	0,00	0,00	0,00	0,00	AE	2
Winden, F.A.A.M. van	prof dr	hgl	0,50	0,50	0,50	0,50	AE	1
Yang, Y.	msc	Ph.D.	-	-	-	0,20	AE	1
Zeelenberg, M.	prof dr	guest	0,00	0,00	-	-	AE	1
Total 1st flow of funds			3,22	4,41	4,97	6,13		
Total 2nd flow of funds			5,15	4,42	3,13	2,30		
Total 3rd flow of funds			1,85	0,85	0,10	0,00		
Total 1st f.o.f. excl. Ph.D.'s			2,42	2,83	2,57	3,33		
Total 1st-3rd flow of funds			10,22	9,68	8,20	8,43		
Ph.D. students			3,10	3,98	4,30	4,35		

13.2 PROGRAMME DESIGN

Objective

Improving the understanding of the behavioural determinants and consequences of economic decision making by (a) focusing on political economic issues, (b) allowing for bounded rationality, and (c) using laboratory experimentation as research method.

Motivation

Political decision making plays an important role in economies. Governments, for example, are essential for the functioning of markets, may be called upon to correct for market failures, but also have their own dynamics. Positive welfare effects of policies cannot be taken for granted. It is, therefore, important to study political decision making and the way in which policies can be applied beneficially. These observations provide the motivation for the first project: “Economics of political decision making”, a long standing project at the FEB dating back to 1983. It is related to public choice and the more recent upsurge in political economics.

Economic models, also when concerned with political decision making, typically make strong assumptions about the rationality, sophistication, and selfishness of individual behaviour. Experimental and other empirical evidence suggests, however, that the predictive power of the standard ‘homo economicus’ model is often disappointing and depends on the institutional character of the decision making environment. There is a need for greater knowledge and a more satisfactory treatment of the bounds on rationality generated by the nature of cognition and emotion, and the influence of institutions. This motivates the second project: “Bounded rationality and institutions”, which fits into the emerging field of behavioural economics.

For the advancement of theory, empirical feedback is crucial. This may hold in particular for new research areas, when sorting out the most promising ways to go. Empirical analysis is seen as an important ingredient of this programme. For many of the issues studied in the aforementioned two projects, however, adequate field data are hard to come by or even nonexistent. Laboratory experimentation is a helpful complementary research method, especially in these cases, for exploration or the testing of models focusing on fundamental behavioural aspects or mechanisms. This motivates the third project: “Experimental economics”, which is stimulated by, and provides feedback for, the other two projects.

Institutional embedding

The research of this programme is carried out within the Center for Research in Experimental Economics and political Decision-making (CREED), a research institute of the FEB. CREED was established in 1991 by a PIONIER-grant from the Netherlands Organisation for the Advancement of Scientific Research (NWO) for the development of experimental economics in the Netherlands. An important facility is the CREED-laboratory for experimental economics, one of the few dedicated computer laboratories in Europe. Its focus on political decision making and experimental economics distinguishes CREED internationally.

Projects

I Economics of political decision making

This project is concerned with the demand for and the endogenous supply of government policies, the ways in which coordination takes place through the political decision-making process, and the effects thereof on the economy. Major research topics are:

- Political participation and influence (voting, activity and influence of interest groups);
- Interaction between the public sector and the private sector (e.g. the development of social capital and its importance for the provision of public goods);
- Political economy of public and private institutions (e.g. issues of fiscal federalism).

II Bounded rationality and institutions

In this project fundamental aspects of individual decision making, with economic relevance, are investigated. More particularly, attention is focused on the impact of cognitive limitations and emotions. In addition, responses to the complexity and institutional characteristics of the decision environment are studied. Among the topics investigated are:

- Group formation in complex environments (e.g. development of political preferences through social interaction, development of interest groups);
- Economic significance and modelling of emotions (e.g. anger, anxiety, happiness);
- Performance of various auction formats;
- Irrationalities in risk attitudes, and efficiency gains by avoiding or reckoning with these.

III Experimental economics

The main purpose of laboratory experiments in economic research is to create a (political) economic process in a laboratory environment which allows for sufficient control and accurate measurement. Experiments are used for three purposes: (a) the testing of behavioural assumptions and predictions of existing (competing) theories; (b) the searching for facts that are instrumental in the construction of descriptive and explanatory theories; and (c) the evaluation of (new) institutions to assist policy makers. Research in this project is particularly stimulated by, and provides feedback for, the aforementioned two projects. Major lines of research are:

- Voting and electoral competition (behaviour of voters and political candidates/parties);
- Lobbying and political pressure (ways and means, and determinants of effectiveness);
- Emotions and economic behaviour (impact, and modelling);
- Markets and institutions (functioning of markets and, the design of, institutions);

- Evolution of cooperation (development of cooperative behaviour over time);
- Biases in risk attitudes.

13.3 PROGRAMME EVALUATION

Two major changes characterize CREED's 2010. First and foremost, Frans van Winden decided to step down as director of CREED as of December 31st. Frans is co-founder of CREED and has been the heart and soul of our group since we started in 1991. In those years, Frans has supervised 13 Ph.D. students, all of which have moved on to flourishing careers. He also managed to obtain important research grants that have helped us to develop. CREED would not be what it is today if it had not been for the efforts and contributions by Frans. We are pleased that he will remain active as researcher at CREED. As of January 1st, Arthur Schram has taken over as CREED's director.

Second, after 18 years, CREED has moved its laboratory to a new location on campus. We now have two laboratories and one reception room in which the subjects can be briefed before the experiment starts (this is conveniently located between the two laboratories). One lab consists of 36 cubicles with desktop computers and the other of 24 cubicles. For the smaller lab we have portable MacBooks that can also be used to run experiments outside the laboratory using a wireless network. Both laboratories are connected to the same network and fileserver which makes it possible to run sessions with up to 60 participants. The extended facilities have solved the congestion problems that we have been facing in recent years. We now have sufficient capacity to facilitate requests by other FEB research groups to use the laboratory to run experiments. The laboratory was officially opened with a mini-symposium where two former CREEDers (Jan Potters and Arno Riedl) that have moved on to full-professor positions elsewhere presented recent work.

The high level of research at CREED continued in 2010. A series of top-level publications include articles in the *American Economic Review*, the *American Journal of Political Science* and the *Journal of Public Economics* as well as a letter in *Nature*. The diversity and multi-disciplinarity of research at CREED also shows from publications in the *Journal of Theoretical Biology* and *Mathematical Social Sciences*.

Research contacts were continued, i.a., by a successful seminar series that included presentations by renowned scholars such as Ethan Bueno de Mesquita, Gary Charness, Stefano Dellavigna, Dan Houser, Dan Levin and Tim Salmon. CREED also (co-) organised three conferences in Amsterdam. The Amsterdam workshop on Behavioural and Experimental Economics (ABEE 2010) was organised within the framework of the faculty's Research Priority Area Behavioural Economics and included contributions by Uri Gneezy and David Reiley. For the cognitive science center (CSCA) in which CREED participates, Frans van Winden organised a symposium on neuro-economics chaired by Ernst Fehr, which included contributions by Scott Huettel and Kevin McCabe. This symposium was the closure of a summer school on neuro-economics organised by Frans for the CSCA. Finally, CREED organised the 2010 Tinbergen Conference and based it on the topic 'The Nature of Preferences'. Amongst the participants in the multi-disciplinary conference were Drew Fudenberg, Martin Nowak, and Jörgen Weibull. All of these conferences included presentations by members of CREED, enabling a fruitful exchange of our research.

Furthermore, Audrey Hu successfully defended her Ph.D.-these on auction design, which was supervised by Theo Offerman. Audrey now works as a postdoctoral researcher at Tilburg University.

After saying goodbye to various researchers over the past few years, we were happy to welcome Gönül Doğan as a new assistant professor at CREED. Gönül obtained her Ph.D. at Tilburg University (supervised by former CREEDer Jan Potters).

13.4 RESOURCES AND FUNDING

The programme again received modest funding from the research institute ASE-RI, which was largely spent to cover (part of the) traveling costs to attend conferences. Additional means were obtained from external funding and the Tinbergen Institute (for Ph.D.-students).

Substantial additional means came from the Dutch science foundation NWO and the Research Priority Area Behavioural Economics. The latter in particular provide a solid foundation for paying participants in experiments at the CREED laboratory, which form a major budget item. Furthermore, a major grant was obtained from the university-wide spearhead Cognition for the project “Decision-Making and Adaptive Control over Impulsive Actions” (based on a joint proposal with researchers from FMG and AMC).

As for NWO funding, the VENI grant for Aljaž Ule continued as did the Ph.D.-positions that are part of an NWO Vidi grant awarded to former CREEDer Jacob Goeree.

13.5 OUTPUT

Key publications

- Abbink, K., Brandts, J., Herrmann, B. & Orzen, H. (2010). Inter-Group Conflict and Intra-Group Punishment in an Experimental Contest Game. *American Economic Review*, 100, 420-447.
- Boone, J., Fredriksson, P., Holmlund, B. & Ours, J. van (2007). Optimal unemployment insurance with monitoring and sanctions. *Economic Journal*, 117, 399-421.
- Brandts, J., Riedl, A. & Winden, F.A.A.M. van (2009). Competitive Rivalry, Social Disposition, and Subjective Well-being: An Experiment. *Journal of Public Economics*, 93, 1158-1167.
- Großer, J. & Schram, A.J.H.C. (2006). Neighborhood Information Exchange And Voter Participation: An Experimental Study. *American Political Science Review*, 100, 235-248.
- Maximiano, S., Sloof, R. & Sonnemans, J (2007). Gift exchange in a multi-worker firm. *Economic Journal* 117, 1025-1050.
- Offerman, T.J.S., & Potters, J. (2006). Does Auctioning of Entry Licenses Induce Collusion? An Experimental Study. *Review of Economic Studies*, 73, 769-791.
- Offerman, T.J.S., Sonnemans, J.H., Kuilen, G. van de, & Wakker, P.P. (2009). A Truth-Serum for Non-Bayesians: Correcting Proper Scoring Rules for Risk Attitudes. *Review of Economic Studies*, 76, 1461-1489.
- Ule, A., Schram, A.J.H.C., Riedl, A. & Cason, T. (2009). Indirect Punishment and Generosity Towards Strangers. *Science*, 326, 1701-1703.
- Veelen, M. van & Weide, R. van der (2008). A note on different approaches to index number theory. *American Economic Review*, 98, 1722-1730.

Forthcoming

- Gillet, J., Schram A.J.H.C. & Sonnemans, J.H. (2010). Cartel Formation and Pricing: The Effect of Managerial Decision Making Rules. *International Journal of Industrial Organisation*.

- Hu, A., Offerman, T.J.S. & Onderstal, S. (2010). Fighting Collusion in Auctions: An Experimental Investigation. *International Journal of Industrial Organisation*.
- Krawczyk, M.W. (2010). A model of procedural and distributive fairness. *Theory and Decision*.
- Leuven, E., Oosterbeek, H., Sonnemans, J.H., & Klauw, B. van der (2010). Incentives versus sorting in tournaments: Evidence from a field experiment. *Journal of Labour Economics*.
- Meerendonk, A. van de and Onderstal, S. (2010). If You Pay Peanuts, ...: A Laboratory Experiment on Reward Schemes in Employment Service Contracting. *European Journal of Social Security*.
- Oosterbeek, H., Sloof, R. and Sonnemans, J.H. (2010). Rent-seeking versus productive activities in a multi-task experiment. *European Economic Review*.
- Sescousse, G., Bault, N., and Chambon, V. (2010). Chocolat, sexe et argent : comment le cerveau représente-t-il les récompenses? In Bault, N., Chambon, V., Maionchi-Pino, N., Pénicaud, F.X., Putois, B. and Roy, J.M (Eds.). *Peut-on Se Passer de Représentations en Sciences Cognitives*, Paris : De boeck université.
- Sonnemans, J.H. & Dijk, F. van (2010). Errors in judicial decisions: experimental evidence. *Journal of Law, Economics, and Organisation*.
- Souma, T., & Tsutsui, Y. (2010). Competition in the Japanese Life Insurance Industry. *Review of Monetary and Financial Studies*.
- Veelen, M. van (2010). A rule is not a rule if it changes from case to case (a reply to Marshall's comment). *Journal of Theoretical Biology*.

Publications in numbers

<i>Experimental & Political Economics</i>				2010	
1) Academic publications	a) in refereed journals	A	5		
		B	7		
		Other	2	14	
	b) in other journals		0	0	
	c) book chapters	A	0		
		B	1		
		Other	0	1	
		d) proceedings		0	0
	Total				15
2) Books		A	0	0	
		B	0		
		Other	1		
3) Ph.D. theses			1	1	
4) Professional publications			3	3	
5) Popular publications			0	0	
6) Working papers			26	26	
Total				45	

Dissertations

- Hu, X. (2010, 22 September). Essays on Auctions. Universiteit van Amsterdam. [promotor prof. dr. T.J.S. Offerman, co-promotor dr. S. Onderstal] [cat. I]

Academic publications (excluding publications in/of books) – refereed

A

- Abbink, K., Brandts, J., Herrmann, B. & Orzen, H. (2010). Inter-Group Conflict and Intra-Group Punishment in an Experimental Contest Game. *American Economic Review*, 100, 420-447.
- Burnett, S., Bault, N., Coricelli, G. & Blakemore, S.J. (2010). Adolescent's heightened risk-seeking in a probabilistic gambling task. *Cognitive Development*, 25, 183-186.
- Großer, J., Schram, A.J.H.C. (2009). Public Opinion Polls, Voter Turnout and Welfare: An Experimental Study. *American Journal of Political Science*.
- Krawczyk, M.W. (2010). A glimpse through the veil of ignorance: equality of opportunity and support for redistribution. *Journal of Public Economics*, 94, 131-141.
- Veelen, M. van, García, J., Sabelis, M.W., & Egas, M. (2010). Call for a return to rigour in models. *Nature*, 467, 661.

B

- Abbink, K. & Sadrieh, A. (2010). The Pleasure of Being Nasty. *Economics Letters*, 105, 306-308.
- Bosman, R. & Winden, F.A.A.M. van (2010). Global Risk, Investment, and Emotions. *Economica*, 77, 451-471.
- Reuben, E., & Winden, F.A.A.M. van (2010). Fairness perceptions and prosocial emotions in the power to take. *Journal of Economic Psychology*, 31, 908-922.
- Sadiraj, V., Tuinstra, J., & Winden, F.A.A.M. van (2010). Identification of Voters with Interest Groups Improves the Electoral Changes of the Challenger. *Mathematical Social Sciences*, 60, 210-216.
- Sonnemans, J.H., & Tuinstra, J. (2010). Positive expectations feedback experiments and number guessing games as models of financial markets. *Journal of Economic Psychology*, 31, 964-984.
- Tsutsui, Y., Kimball, M., & Ohtake, F. (2010). Koizumi Carried the Day: Did the Japanese Election Results Make People Happy and Unhappy?" *European Journal of Political Economy*, vol. 26, no.1, pp.12-24.
- Veelen, M. van, García, J. and Avilés, L. (2010). It takes grouping and cooperation to get sociality. *Journal of Theoretical Biology*, 264, 1240–1253.

Other

- Benzion, U., Shahrabani, S., Tsutsui, Y., & Yom Din, G. (2010). A policy to promote influenza vaccination: A behavioural economic approach. *Health Policy*, 97, 238-249.
- Hirayama, K., & Tsutsui, Y. (2010). How Fast Do Tokyo and New York Stock Exchanges Respond to Each Other?: An Analysis with High-Frequency Data. *Japanese Economic Review*, 61(2), 175-201.

Academic publications (in/of books) – refereed

B

- Hennig-Schmidt, H., Leopold-Wildburger, U., Ostmann, A., & Winden, F.A.A.M. van (2010). Understanding Negotiations: A Video Approach in Experimental Gaming. In: A. Ockenfels and A. Sadrieh (eds). *The Selten School of Behavioural Economics*, Springer Verlag 127-165.

Other

- Tsutsui, Y., Ohtake, F., & Shiraishi S. (July 2010). Happiness in Japan: Inequality, labor and family Tokyo: Nppon Hyoron Sha, (in Japanese).

Academic publications (working- and discussion papers)

- Abbink, K., Bosman, R., Heijmans, R., & Winden, F.A.A.M. van (2010). Disruptions in large value payment systems: An experimental approach.
- Bao, T., Hommes, C., Sonnemans, J.H., & Tuinstra, J. (2010). Individual Expectations, Limited Rationality and Aggregate Outcomes.
- Benzion, U., Shahrabani, S., & Tsutsui, Y. (2010). Economic and Behavioural Factors in an Individual's Decision to Get an Influenza Vaccination in Japan. Discussion Papers in Economics And Business, No. 10-23.
- Corazzini, L., & Tyszler, M. (2010). Preference for Efficiency or Confusion? A Note on a Boundedly Rational Equilibrium Approach to Individual Contributions in a Public Good Game. ISLA Working Papers, 37.
- Dari-Mattiacci, G., Onderstal, S., & Parisi, F. (2010). Inverse Adverse Selection: The Market for Gems. Amsterdam Center for Law & Economics Working Paper 2010-04
- Fahrenfort, J., Winden, F.A.A.M. van, Pelloux, B., Stallen, M., & Ridderinkhof, K.R. (2010). The role of empathy and social ties in cooperation and sharing.
- Fong, Y., Huang, C., & Offerman, T.J.S. (2010) Guilt Driven Reciprocity in a Psychological Signaling Game, Discussion Paper, University of Amsterdam.
- Groot Ruiz, A. de, Offerman, T.J.S., & Onderstal, S. (2010). Equilibrium Selection in Cheap Talk Games: ACDC Rocks When Other Criteria Remain Silent. CREED working paper.
- Groot Ruiz, A. de, Ramer, R., & Schram, A.J.H.C. (2010) Structure in Legislative Bargaining.
- Goeree, J. K., Offerman, T.J.S., & Sloof, R. (2010). Demand Reduction and Preemptive Bidding in License Auctions, Discussion Paper, University of Amsterdam.
- Haan, T. de, Offerman, T.J.S., & Sloof, R. (2010) Noisy Signaling: Theory and Experiment, Discussion Paper, University of Amsterdam.
- Haan, M., B. Los, S. Onderstal, and Y. Riyanto (2010). Read My Lips: The Case against Election Promises. Tinbergen Institute Discussion Paper 10-056.
- Hinloopen, J., & Onderstal, S. (2010). Collusion and the Choice of Auction: An Experimental Study. Tinbergen Institute Discussion Paper 10-120/1.
- Hirayama, K., Nishimura, Y. and Tutsui, Y. (2010). The Financial Crisis and Intraday Volatility: Comparative Analysis on China, Japan and the US Stock Markets. Discussion Papers in Economics And Business, No. 10-29 (in Japanese).
- Hu, A., Offerman, T.J.S., & Zou, L. (2010). Premium Auctions and Risk Preferences.
- Linde, J., & Sonnemans, J.H. (2010). Social Comparison and Risky Choices
- Nosenzo, D., Offerman, T.J.S., Sefton, M., & Veen, A. van der (2010) Inducing Good Behaviour: Bonuses versus Fines in Inspection Games, Discussion Paper, University of Amsterdam.
- Offerman, T.J.S., & Veen, A. van der (2010). How to subsidize contributions to public goods - Does the frog jump out of the boiling water?
- Shimizu, K., Morimoto, Y., Watabe, M., Iida, T., & Kuriyama, K. (2010). Are People More Likely to Vote with "easy" Information than with "hard" Information?
- Tsutsui, Y., Benzion, U. and Shahrabani, S. (2010) Economic and Behavioural Factors in an Individual's Decision to get an Influenza Vaccination in Japan.
- Tyszler, M., & Schram, A.J.H.C. (2010). Information and Strategic Voting.
- Veelen, M. van (2010). But some neutrally stable strategies are more neutrally stable than others.
- Veelen, M. van, & García, J. (2010). In and out of equilibrium: evolution of strategies in repeated games with discounting.
- Vyrastekova, J., Onderstal, S., & Koning, P. (2010). Self-selection and the Power of Incentive Schemes: An Experimental Study. Tinbergen Institute Discussion Paper 10-074
- Winden, F.A.A.M. van, Krawczyk, M.W., & Hopfensitz, A. (2010). Investment, Resolution of Risk, and the Role of Affect.
- Winden, F.A.A.M. van, & Ash, E. (2010). On The Behavioural Economics of Crime.

Professional publications

- Groot Ruiz, A. de, Haan, T. de, & Linde, J. (2010). “Reactie op: Economen in het laboratorium,” *Economisch Statistische Berichten* 4587(95): 380.
- Onderstal, S. (2010). Inleiding: Gedragseconomie. *TPEdigitaal* 2010-4.
- Sadiraj, V., Tuinstra, J., Winden, F.A.A.M. van (2010). Special interest groups and election outcomes, *MET*, vol. 18, 2010, 12-17.

Contributions to academic conferences, workshops and seminars

- Groot Ruiz, A. de (2010, July). Equilibrium Selection in Cheap Talk Games: ACDC. Economic Science Association World Meeting in Copenhagen.
- Groot Ruiz, A. de (2010, June). ACDC. Equilibrium Selection in Cheap Talk Games: ACDC. CREED-CEDEX-CBESS Meeting in Amsterdam.
- Haan, T. de (2010, July). Economic Science Association World Meeting in Copenhagen.
- Linde, J. (2010, 6-7 May). Social Comparison and Risky Choices. EER Young Economists Workshop, Florence.
- Linde, J. (2010, 10 June). Winning alone and losing together or losing alone and winning together, Behavioural and Experimental Economics Symposium, Maastricht.
- Linde, J. (2010, 20-21 June). Winning alone and losing together or losing alone and winning together, June 20-21 2010, CREED-CeDEx-CBESS Graduate student conference, Amsterdam.
- Linde, J. (2010, 8-11 July) Winning alone and losing together or losing alone and winning together, ESA World Conference 2010, Copenhagen.
- Offerman, T.J.S. (2010, July 13). ‘Equilibrium Selection in Cheap Talk Games: ACDC Rocks When Other Criteria Remain Silent’, Invited Lecture, University of Dusseldorf, Dusseldorf.
- Offerman, T.J.S. (2010, October 25). ‘Discrimination and Affirmative Action’, Presentation for NWO-VICI committee, Utrecht.
- Onderstal, S. (2010). Going Once, Going Twice, Reported! Cartel Activity and the Effectiveness of Leniency Programmes in Experimental Auctions. ACLE Competition & Regulation Meeting
- Onderstal, S. (2010). Avoiding Pyrrhic victory: Auctions and bankruptcies in the laboratory. Seminar, University of Amsterdam
- Onderstal, S. (2010). Bidding to Give in a Door-to-door Fundraising Field Experiment: A Comparison of Charitable Fundraising Mechanisms. M-BEES Maastricht
- Onderstal, S. (2010). Bidding to Give in a Door-to-door Fundraising Field Experiment: A Comparison of Charitable Fundraising Mechanisms. ESA World Meeting, Copenhagen
- Onderstal, S. (2010). Avoiding Pyrrhic victory: Auctions and bankruptcies in the laboratory. EARIE, Istanbul
- Schram, A.J.H.C. (2010, April). Strategic Voting. EPCS, Izmir.
- Schram, A.J.H.C. (2010, July). Social and Moral Norms. ESA Copenhagen.
- Schram, A.J.H.C. (2010, August). Bargaining and Structure. ES World Meetings, Shanghai.
- Schram, A.J.H.C. (6-10-2010). Endogenous Information Networks. Seminar at Free University of Brussels.
- Sonnemans, J.H. (2010, April). Workshop Jena.
- Sonnemans, J.H. (2010, May). Workshop EER Florence.
- Sonnemans, J.H. (2010, July). ESA Copenhagen.
- Sonnemans, J.H. (2010, October). Seminar Heidelberg.
- Tyszler, M. (2010, 8-11 July). Information and Strategic Voting. ESA Meetings at Copenhagen.
- Tyszler, M. (2010, 11 June). Information and Strategic Voting: Heterogeneous Preferences, M-BEES, Maastricht.

- Tyszler, M. (2010). Preference for Efficiency or Confusion? Ph.D. Lunch Seminars, Tinbergen Institute, Amsterdam
- Veelen, M. van (2010). George Price and Johan Cruijff: “if you want to win the game, you should outscore your opponent. KNAW Akademiecolloquium "Evolution of conflict and cooperation"
- Veelen, M. van (2010). Repeated games and population structure: a recipe for cooperation. 5th Tinbergen Institute Conference "The nature of Preferences and Decision-Making":
- Veldhuizen, R. van (2010, 10 July). Competition and Resource Scarcity on a Nonrenewable Resource Market: An Experiment Locatie: Economic Science Association World Meeting 2010, Copenhagen.
- Veldhuizen, R. van (2010, May). Competition and Resource Scarcity on a Nonrenewable Resource Market: An Experiment Locatie: European Economic Review Talented Economist Clinic, Florence
- Winden, F.A.A.M. van (2010, 21 January). On the role of empathy and sympathy in sharing, LAMETA, Université de Montpellier 1 (UMI), invited seminar.
- Winden, F.A.A.M. van (2010, 17 February) On economics and social ties, CSCA - Current Issues, invited lecture.
- Winden, F.A.A.M. van (2010, 22 February). On the role of empathy and sympathy in sharing, Department of Economics, University of Copenhagen, invited seminar.
- Winden, F.A.A.M. van (2010, 25 February). On the role of empathy and sympathy in sharing, Department of Economics, University of Oslo, invited seminar.
- Winden, F.A.A.M. (2010, 24 May). On the role of empathy and sympathy in cooperation and sharing, Sino-German Workshop on Advanced Topics in Experimental and Behavioural Economics, 24-27 May, Sichuan University, Chengdu, China, Keynote speaker.
- Winden, F.A.A.M. van (2010, 24 November). Never Trust a Stranger - Novel Model-Based fMRI Approaches in Linking Economic Decision-Making to Trust and Social-Affective Ties, Final Conference NWO Programme Cognition, Utrecht.

Organisational contributions to conferences, workshops and seminars

- Onderstal, S. (2010). Organiser (jointly) Economics Colloquia Seminars, Tinbergen Institute
- Schram, A.J.H.C. (2010). Co-organiser of the 5th Tinbergen Institute Conference "The nature of Preferences and Decision-Making":
- Ule, A. (2010). Co-organiser of the 5th Tinbergen Institute Conference "The nature of Preferences and Decision-Making":
- Veelen, M. van (2010). Co-organiser of KNAW Akademiecolloquium "Evolution of conflict and cooperation"
- Veelen, M. van (2010, September). Co-organiser of the 5th Tinbergen Institute Conference "The nature of Preferences and Decision-Making":
- Winden, F.A.A.M. van (2010). Organiser (joint with Tobias Kalenscher) of CSCA Summer School on Neuroeconomics, annex Workshop and Symposium, Amsterdam, 7-18 June, 2010.

Participation in academic networks & fellowships

- Offerman, T.J.S. (2010). Fellow of the Tinbergen Institute. Fellow of CESS, NYU.
- Onderstal, S. (2006-). Fellow Tinbergen Instituut.
- Onderstal, S. (2006-). Fellow ACLE (Amsterdam Center for Law & Economics).
- Onderstal, S. (2006-). Fellow ENCORE (Economics Network for Competition and Regulation).
- Schram, A.J.H.C. Fellow Tinbergen Institute
- Tyszler, M. (2010). Member of ESA.
- Winden, F.A.A.M. van. Member Koninklijke Hollandsche Maatschappij der Wetenschappen
- Winden, F.A.A.M. van. Fellow of: Tinbergen Institute, CEPR, CESifo, ENCORE

Editor or member of editorial board

- Offerman, T.J.S. (2010). Associate Editor *Games and Economic Behaviour*.
Offerman, T.J.S. (2010). Member Editorial Board *Experimental Economics*.
Onderstal, S. (2010-). Editor *TPEdigitaal*.
Schram, A.J.H.C. (2009). Advisory editor of *Experimental Economics*.
Sonnemans, J. (2010). Member Editorial Board *Journal of Economic Psychology*.
Sonnemans, J. (2010). Member Editorial Board *Quantitative Finance*.
Sonnemans, J. (2010). Associate editor *EER*.
Winden, F.A.A.M. van (2010). Member Editorial Board *Public Choice*.
Winden, F.A.A.M. van (2010). Invitation to join Editorial Board *Economics Research International*.
Winden, F.A.A.M. van (2010). Invitation for Associate Editorship *Journal of Economic Psychology*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Winden, F.A.A.M. van (2010, 26 February). Ph.D.-committee: Karen Hauge, Morality and Economic Decisions (supervisors: Geir Asheim, Kjell Brekke, Karin Nyborg); University of Oslo, defense.
Winden, F.A.A.M. van (2010, 25 October 2010). (Ph.D.-committee: Nadège Bault, The Neural Underpinnings of Emotions Involved in Individual and Social Decision-making (supervisor: Giorgio Corricelli; Université Claude Bernard, Lyon 1), defense.

Research contributions in the media

- Winden, F.A.A.M. van. Interview SPUI 33 (UvA Alumni Magazine 02/2010, pp. 04-07), “Het Winden, F.A.A.M. van. Gesprek”, by Vittorio Busato.
Winden, F.A.A.M. van. Mini documentaire “Brain & Cognition” (Joost van Tilburg, Persvoorlichting UvA).

Grants, prizes and honours

- Winden, F.A.A.M. van (2010). Participant of Witness Seminar “Emergence and Evolution of Experimental Economics”, 28-29 May, 2010, KNAW, Amsterdam.
Winden, F.A.A.M. van (2010). Interview by Andrej Svorencik about the history of experimental economics, in preparation of Witness Seminar, 11 February, 2010.
Winden, F.A.A.M. van (2010). NWO-Brain & Cognition Grant for Summer School in Cognitive Science (co-applicant).
Winden, F.A.A.M. van (2010). Postdoc position (2 years, 167 KEuro), Research Priority Programme Brain & Cognition, University of Amsterdam.

CHAPTER 14: INDUSTRIAL ORGANISATION, COMPETITION POLICIES & REGULATION

Programme Director: Prof.dr. P. van Cayseele & Prof.dr. J. Hinloopen
Department: Economics (AE)
METIS-code: uva/fee/res/ica/prog
JEL-classification: L
Starting date programme: 2005
VSNU-scores 2001-2007: Quality: 5, Productivity: 4.5, Relevance: 5, Viability: 4,5

14.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Brouwer, M.T.	dr	ud	0,00	0,00	-	-	AE	1
Cayseele, P. van	prof dr	hgl	0,10	0,10	0,20	0,10	AE	1
Doarest, A.	msc	Ph.D.	0,45	0,60	0,60	0,15	AE	1
Leffelaar-Felsö, F.A.	msc	Ph.D.	-	0,48	0,54	0,35	AE	1
Hinloopen, J.	dr	uhd	0,50	0,50	-	-	AE	1
Hinloopen, J.	prof dr	hgl	-	-	0,50	0,50	AE	2
Onderstal, S.	dr	ud	0,26	0,28	0,49	0,30	AE	1
Seldeslachts, J.	dr.	ud	-	-	0,50	0,50	AE	1
Smrkolj, G.	msc	Ph.D.	-	-	-	0,60	AE	1
Soetevent, A.R.	dr	ud	0,33	-	-	-	AE	1
Soetevent, A.R.	dr	ud	0,30	0,90	0,90	0,77	AE	2
Total 1st flow of funds			1,64	1,96	2,33	2,00		
Total 2nd flow of funds			0,30	0,90	1,40	1,27		
Total 3rd flow of funds			0,00	0,00	0,00	0,00		
Total 1st f.o.f. excl. Ph.D.'s			1,19	0,88	1,19	0,90		
Total all flows of funds			1,94	2,86	3,73	3,27		
Ph.D. students			0,45	1,08	1,14	1,10		

14.2 PROGRAMME DESIGN

Objective

Improving the understanding of the working of imperfectly competitive markets and the possible role for government intervention on these markets by focusing on issues within the sphere of Industrial Organisation and using applied oligopoly theory, field experiments and laboratory experimentation as research methods.

Motivation

Industrial Organisation (IO) studies imperfectly competitive markets, in particular how firms compete with each other on these markets and what the effects are of policy interventions aimed at affecting market performance. The natural focus of IO is on oligopolies where firms

have at least some market power. Topics of interest thus include pricing strategies, collusion and tacit collusion, locational choice, research and development, inter-firm relationships, competition policies, market design, auctions, and regulation. IO is a field that uses all three types of research strategies: theoretical, empirical, and experimental. The research programme does not preclude any of these research methods.

Projects

The programme of the IO group can be subdivided into four strands of research, which are interrelated:

Research and development

Research cooperations are key for businesses to successfully innovate and prosper, and firms increasingly rely on extensive networks to achieve their goals. It is, however, still poorly understood how these R&D cooperatives are formed, how they evolve, what their impact is on R&D activities, and what should constitute an optimal R&D policy. These questions drive several research lines. For instance, group members are developing a theoretical framework of research network formation. This framework is tested against a database that includes all large research collaborations in the U.S. Other group members work on dynamic models of R&D, the novelty being here the application of bifurcation methods. This allows for a global analysis, including (transitory) parameter configurations that preclude single-stage equilibria. Yet other group members assess the welfare implications of sustaining R&D cooperatives. Again, the fundamental trade-off between static and dynamic efficiency is addressed, giving additional insights as to what should constitute an optimal R&D-stimulating policy.

Behavioural industrial organisation

Empirical and experimental evidence has mounted that people do not always comply with the assumptions of traditional economic models of ‘optimal’ behaviour. These “anomalies” gave rise to the ever growing subfield of behavioural economics. A next important avenue of research in behavioural economics is whether firms in specific market contexts can and do exploit the bounded rationality of consumers. For example, can firms sell more or soften competition by increasing the number of product that serves no purpose except for confusing buyers. In current research, group members empirically investigate the use of gift certificates (VVV Cadeaubon) by Dutch consumers: Do people spend gift certificates they receive differently than they spend monetary gifts, and does it matter whether they received the certificate from friends or from their employer? In another project, a series of experiments will be set up to study the relationship between competition, the size of a loss and firm profits in insurance markets.

Auctions

In the past few decades, the study of auctions has become one of the most active research areas in economic sciences. We aim at answering questions such as: How to prevent cartel formation in auctions? What is the effect of limited liability on bidding behaviour? How to design auctions of multiple objects? What are optimal mechanisms in quasi-markets such as welfare-to-work markets and health care markets? What is the effect of license auctions on the performance of markets? For example, groups members have studied experimentally the impact leniency programmes on the collusive properties of different auction types. Others have studied fundraising mechanisms on charitable giving in a door-to-door fundraising field experiment. The starting point here is that people are not purely selfish because if they were they would donate nothing to charity.

Regulation and Competition Policies

Since 2005, group members have collected detailed price information on the Dutch market for retail gasoline. With these data, the competitive effects of the governmental programme of auctioning licenses to operate gasoline sites at highways have been quantified. Currently, the data are used to develop an automated procedure to identify regional clusters of low price

variation, an indicator of possible collusive practices. Other current empirical projects on competition policy deal with potential deterrence effects of merger policy tools, based on data from the U.S. Department of Justice and the U.S. Federal Trade Commission. Furthermore, group members investigate whether firms that collaborate in research joint ventures, use these collaborations to collude in product markets. Also the impact of antitrust policy at larges was investigated. This was done by further refining the methodologies to estimate price cost margins and by applying the methodology to data from the Indonesian economy. In addition to the nation-wide impact of the introduction of antitrust policy, also the change in the behaviour of targeted firms was investigated by a difference in difference method.

14.3 PROGRAMME EVALUATION

Strengths

- The group has a very broad orientation, both in terms of the choice of research topics as in terms of methodologies used (theoretical/(lab/field)experimental/empirical).
- Group members are each other's complements, which regularly yields papers that are co-authored by several group members.
- The group is well-embedded in ASE and in Tinbergen Institute; group members thus have co-authored papers with members from other ASE research groups.
- The research performed by the group is very visible and of great practical importance. Group members have close links with governmental bodies such as ministries and antitrust agencies.
- The group is young and has a high growth potential.

Weaknesses

- The connections with US universities could be strengthened.
- The group is not prominent in the arena of theoretical industrial organisation, except for the field of auction theory.

Opportunities

- Within Europe, the group has close contacts with research groups in industrial organisation at other universities. The challenge is to establish a more formal network with these other departments in order to pool research projects and resources.

Threats

- Group members have been requested to carry out heavy administrative duties. This may endanger the internal coherency of the research theme because of the reduced availability of these members.
- The group has a small-scale, with only a few Ph.D. students and no postdocs; a viable research programme needs a continuous inflow and outflow of Ph.D. students.

Relevance to society

Due to his research project on deterrence effects of merger policy tools, the NMa invited Jo Seldeslachts to be part of an expert committee that guides a policy project there, where the impact of the NMa's actions is evaluated through the use of a survey of competition lawyers and economic consultants. As a result of his involvement in the Netherlands in the erection of an economic bureau with the NMa, Patrick Van Cayseele was involved in the selection of a chief competition economist for the NMa and delivered the keynote lecture at the installation conference. The NMa hired Sander Onderstal as external expert in the Transdev/Veolia merger case. Sander Onderstal advised the Ministry of Economic Affairs on future auctions for radio spectrum. Furthermore, Audrey Hu successfully defended her Ph.D. thesis on auctions that was supervised by Theo Offerman (promotor) and Sander Onderstal (co-promotor). Jeroen Hinloopen gave his inaugural lecture, which was picked up by several

(national) media, including the popular consumer's programme TROS Radar. Jeroen Hinloopen and Sander Onderstal's research on leniency programmes was picked up by the German Handelsblatt. Adriaan Soetevent's research on the Dutch Postcode Lottery received extensive attention in the Dutch media, including interviews at Radio-1, BNN Today and RTL-z. The project on gift certificates of Soetevent and Flóra Felső was recently mentioned in Het Financieele Dagblad.

14.4 RESOURCES AND FUNDING

The programme received funding from the research institute ASE-RI but this amount was (very) modest relative to the cost of participation of group members in conferences and other research-related activities. Soetevent's VENI scholarship amounts to about €200.000 for a three year period ending in 2010. And Jo Seldeslachts recently obtained a research grant from the European Union that amounts to about €180.000. Some of the group members managed to obtain additional means from commissioned research for public and private institutions.

14.5 OUTPUT

Key publications

- Banal-Estanol, A., Heidhues, P., Nitsche, R. & Seldeslachts, J. (2010). Screening and Merger Activity. *Journal of Industrial Economics*, LVIII (4), 1-24.
- Goeree, J.K., Maasland, E., Onderstal, S., and Turner, J. (2005). How (Not) to Raise Money. *Journal of Political Economy* 113, 897-918.
- Hinloopen, J and Soetevent, A.R. (2008). Laboratory evidence on the effectiveness of corporate leniency programmes. *RAND Journal of Economics*, 39, No. 2 (Summer), pp. 607 – 616.
- Ioannides, Y. M., and Soetevent, A.R. (2006). Wages and Unemployment in a Random Social Network with Arbitrary Degree Distribution. *American Economic Review*, 96(2), 270-274.
- Konings, J., Cayseele, P. van & Warzynski, F. (2005). The Effects of Privatization and Competitive Pressure on Firms' Price-Cost Margins. *The Review of Economics and Statistics*, 87, 124-134.
- Schram, A.J.H.C. & Onderstal, S. (2009). Bidding to Give: An Experimental Comparison of Auctions for Charity. *International Economic Review*, 50, 431-457.

Forthcoming

- Hinloopen, J. and Van Marrewijk, C. (2011). Power laws and comparative advantage. *Applied Economics*.
- Hu, A., Offerman, T., and Onderstal, S. (2011). Fighting Collusion in Auctions: An Experimental Investigation. *International Journal of Industrial Organisation*.
- Kuhn, P., P. Kooreman, A. R. Soetevent and A. Kapteyn (2011) The Effects of Lottery Prizes on Winners and their Neighbors: Evidence from the Dutch Postcode Lottery. *American Economic Review*.
- Soetevent, A.R. (2011). Payment Choice, Image Motivation and Contributions to Charity: Evidence from a Field Experiment. *American Economic Journal: Economic Policy*.

Publications in numbers

Industrial Organisation, Competition policies & Regulation

				2010	
1) Academic publications	a) in refereed journals	A	2		
		B	0		
		Other	3	5	
		b) in other journals		0	0
	c) book chapters	A	0		
		B	1		
		Other	0	1	
		d) proceedings		0	0
	Total				6
	2) Books		A	0	
		B	0		
		Other	3	3	
3) Ph.D. theses			2	2	
4) Professional publications			10	10	
5) Popular publications			0	0	
6) Working papers			7	7	
Total				28	

Dissertations

- Fattica S. (2010, 3 September). Three Essays on Firm's Location Choices and Public Policy. Katholieke Universiteit Leuven FEB series No 337. [Promotor: prof. dr P. Van Cayseele] [cat. IV]
- Hu, X. (2010, 22 September). Essays on Auctions. University of Amsterdam. [promotor prof. dr. T.J.S. Offerman, co-promoter dr. S. Onderstal] [cat. I]

Academic publications (excluding publications in/of books) – refereed

A

- Banal-Estanol A., Heidhues, P., Nitsche, R. & Seldeslachts, J. (2010). Screening and Merger Activity. *Journal of Industrial Economics*, LVIII (4), 1-24.
- Duso, T. & Seldeslachts, J. (2010). The Political Economy of Mobile Telecommunications Liberalization: Evidence from the OECD Countries, *Journal of Comparative Economics*, 38 (2), 199-216.

Other

- Barros, P., Clougherty J. & Seldeslachts J. (2010). How to Measure the Deterrence Effects of Merger Policy: Frequency or Composition? *International Journal of the Economics of Business*, 17 (1), 1-8.
- Duso, T., Pennings, E. & Seldeslachts J. (2010). Learning Dynamics in Research Alliances: A Panel Data Analysis. *Research Policy*, 39 (6), 776-789.
- Van Cayseele, P. and P. Camesasca (2010). Communication in Cartelized Industries. *Review of Business and Economics*, vol. 55 (2), pp. 233-248.

Academic publications (in/of books) – refereed

B

- Konings, J., P. van Cayseele and F. Warzynski (2010). The Implementation of National Competition Law and the Dynamics of Price Cost Margins. In: J.-L. Gaffard and E. Salies (eds.), *Innovation, Economic Growth and the Firm*, Edward Elgar, Cheltenham.

Academic publications (in/of books) – non-refereed

- Decoster A., Berlage L., De Grauwe P., Eyckmans J., Goos M., Schokkaert E., Van Cayseele P., Verboven F. & A. Watteyne, (2010). *Economie: Een Inleiding*, 910 p., Leuven, Universitaire Pers Leuven.
- Hinloopen, J. (2010). *Experimenten voor in de klas*, Malmberg.
- Hinloopen, J., P. Adriaanse, and A. Zuiderwijk, (2010). *Praktische Economie – vwo (5e druk)*, Malmberg.

Academic publications (working- and discussion papers)

- Dari-Mattiacci, G., S. Onderstal, and F. Parisi (2010). Inverse Adverse Selection: The Market for Gems. *Amsterdam Center for Law & Economics Working Paper* 2010-04.
- De Groot Ruiz, A., T. Offerman, and S. Onderstal (2010). Equilibrium Selection in Cheap Talk Games: ACDC Rocks When Other Criteria Remain Silent. *CREED Working Paper*.
- Duso, D. Roeller L.-H. & Seldeslachts J. (2010). Collusion through Joint R&D: An Empirical Assessment. *Tinbergen Institute Discussion Paper*, 10-112.
- Haan, M., B. Los, S. Onderstal, and Y. Riyanto (2010). Punching above One's Weight: The Case against Election Campaigns. *Tinbergen Institute Discussion Paper*, 10-056.
- Hinloopen, J. and S. Onderstal (2010). Collusion and the Choice of Auction: An Experimental Study. *Tinbergen Institute Discussion Paper*, 10-120.
- Soetevent, A.R. (2010). Price Competition on Graphs. *Tinbergen Institute Discussion Paper*, 10-126/1.
- Vyrastekova, J., S. Onderstal, and P. Koning (2010). Self-selection and the Power of Incentive Schemes: An Experimental Study. *Tinbergen Institute Discussion Paper*, 10-074.

Professional publications

- Banal-Estanol A., Koboldt C. & Seldeslachts J. (2010). Minority Interests in Competitors. A Research Report for the Office of Fair Trading (London, UK).
- Hinloopen, J. (2010). Slim, slimmer, slimst. *Tijdschrift voor het Economisch Onderwijs*, No. 6 (december): 293.
- Hinloopen, J. (2010). Verzekerde marktmacht. *TPEdigitaal*, 4(3), 21 – 38.
- Hinloopen, J. (2010). Het nieuwe examenprogramma economie: havo versus vwo. *Tijdschrift voor het Economisch Onderwijs*, No. 4 (augustus), 178 – 180.
- Hinloopen, J. (2010). Zij-intromer. *Tijdschrift voor het Economisch Onderwijs*, No. 5 (oktober), 271.
- Hinloopen, J. (2010). De wiebeltax. *Tijdschrift voor het Economisch Onderwijs*, No. 4 (augustus), 215.
- Hinloopen, J. (2010). Gedereguleerd. *Tijdschrift voor het Economisch Onderwijs*, No. 3 (juni), 155.
- Hinloopen, J. (2010). De principaal en de agent. *Tijdschrift voor het Economisch Onderwijs*. No. 2 (april), 77.
- Hinloopen, J. (2010). Informatiewaarde. *Tijdschrift voor het Economisch Onderwijs*. No. 1 (februari), 9.
- Onderstal, S. (2010). Inleiding: Gedragseconomie. *TPEdigitaal*, 2010-4.

Contributions to academic conferences, workshops and seminars

- Hinloopen, J. (2010). Going once, going twice, reported! Cartel activity and the effectiveness of leniency programmes in experimental auctions, University of East Anglia, October 2010, Norwich.

- Hinloopen, J. (2010). Going once, going twice, reported! Cartel activity and the effectiveness of leniency programmes in experimental auctions, Royal Economic Society (RES), March 2010, Guildford.
- Hinloopen, J. (2010). Going once, going twice, reported! Cartel activity and the effectiveness of leniency programmes in experimental auctions, Düsseldorf Institute for Competition Economics (DICE), University of Düsseldorf, June 2010, Düsseldorf.
- Hinloopen, J. (2010). All distinct sample p-p plots. University of Amsterdam, February 2010, Amsterdam.
- Onderstal, S. (2010). Going Once, Going Twice, Reported! Cartel Activity and the Effectiveness of Leniency Programmes in Experimental Auctions. ACLE Competition & Regulation Meeting.
- Onderstal, S. (2010). Avoiding Pyrrhic victory: Auctions and Bankruptcies in the Laboratory. Seminar, University of Amsterdam.
- Onderstal, S. (2010). Bidding to Give in a Door-to-door Fundraising Field Experiment: A Comparison of Charitable Fundraising Mechanisms. M-BEES Maastricht.
- Onderstal, S. (2010). Bidding to Give in a Door-to-door Fundraising Field Experiment: A Comparison of Charitable Fundraising Mechanisms. ESA World Meeting, Copenhagen.
- Onderstal, S. (2010). Avoiding Pyrrhic victory: Auctions and Bankruptcies in the Laboratory. EARIE, Istanbul.
- Seldeslachts, J. (2010, February). Europeanization of EU Member-State Competition Policy: The Commission's Leadership Role. ACLE Heidedag.
- Seldeslachts, J. (2010, March). Collusion through Joint R&D: An Empirical Assessment. Seminar, Max Planck Institute for Collective Goods, Bonn.
- Seldeslachts, J. (2010, April). Collusion through Joint R&D: An Empirical Assessment. ACLE Competition & Regulation Meeting.
- Seldeslachts, J. (2010, September). Europeanization of EU Member-State Competition Policy: The Commission's Leadership Role. EARIE Istanbul.
- Seldeslachts, J. (2010, September). Collusion through Joint R&D: An Empirical Assessment. Jornadas de Economía Industrial, Madrid.
- Seldeslachts, J. (2010, October). Collusion through Joint R&D: An Empirical Assessment. ASSET, Alicante.
- Soetevent, A.R. (2010). Do auctions and forced divestitures increase competition on established markets? Evidence for Dutch retail gasoline. 10th Econometric Society World Congress, Shanghai, China.
- Soetevent, A.R. (2010). Bidding to Give in the Field. 2nd Amsterdam Symposium on Behavioural and Experimental Economics, Amsterdam, NL.
- Soetevent, A.R. (2010). Payment Choice, Image Motivation and Contributions to Charity: Evidence from a Field Experiment. Royal Economic Society Annual Conference, Surrey, UK.
- Van Cayseele P. (2010, 12 April), The Effect of Anti-Trust Law on the Dynamics of Price-Cost Margins in Indonesia, ESMT, Berlin.
- Van Cayseele P. (2010, April 22), Information Exchange in Cartelized Industries: Bananas and Beyond , The ACLE conference on "Information, Communication and Competition", Amsterdam.
- Van Cayseele P. (2010, 1 June). The New Horizontal Agreement Guidelines Draft: Banana's and Beyond, Invited lecture at the Conference in Honor of R. De Bondt: Incentives and Competition, Leuven.
- Van Cayseele P. (2010, 9 June), Lunchforum BMa, De Rol van een Chief Economist bij de Algemene Directie Mededinging, Brussel, Keynote Speaker.
- Van Cayseele P. (2010, 29 September). Transconstellation Panel Discussion on the Future of T2S, Marche-en-Famenne.
- Van Cayseele P. (2010, 15 October). Business Conduct Rules and Competition issues, CEPS Task Force on MiFID Review: What's Next for European Capital Markets?, Brussel.

Other lectures on research

- Seldeslachts, J. (2010). Visiting Lecturer for Ph.D. Course “Economics of Information”, Leuven, Belgium.
Soetevent, A. R (2010, October 11). Discussion on Natural Experiments in Economics in ACLE Research Seminar on Monday.

Organisational contributions to conferences, workshops and seminars

- Onderstal, S. (2010). Organiser (jointly) Economics Colloquia Seminars, Tinbergen Institute
Seldeslachts, J. (2010). Organiser (jointly) Economics Colloquia Seminars, Tinbergen Institute
Soetevent, A.R. (2010). Co-organiser of the 2nd Amsterdam Symposium on Behavioural and Experimental Economics, Amsterdam, NL
Soetevent, A.R (2010) Co-organiser of the Economics Colloquia seminar series (joint TI/ASE-RI initiative)

Participation in academic networks & fellowships

- Hinloopen, J. (2001-). Fellow Tinbergen Instituut.
Hinloopen, J. (2006-). Fellow ENCORE (Economics Network for Competition and Regulation).
Hinloopen, J. (2008-). Fellow ACLE (Amsterdam Center for Law & Economics).
Onderstal, S. (2006-). Fellow Tinbergen Instituut.
Onderstal, S. (2006-). Fellow ACLE (Amsterdam Center for Law & Economics).
Onderstal, S. (2006-). Fellow ENCORE (Economics Network for Competition and Regulation).
Seldeslachts, J. (2010-). Fellow Tinbergen Instituut.
Soetevent, A.R. (2005-). Fellow Tinbergen Instituut.
Soetevent, A.R. (2006-). Fellow ENCORE.
Soetevent, A.R. (2008-). Fellow ACLE.
Van Cayseele, P. (2005-). Fellow ACLE (Amsterdam Center for Law & Economics).
Van Cayseele, P. (2004-). Fellow ENCORE (Economics Network for Competition and Regulation).

Editor or member of editorial board

- Hinloopen, J. (2002-). Associate Editor *Review of Industrial Organisation*.
Onderstal, S. (2010-). Editor *TPEdigitaal*.

Referee activities

- Hinloopen, J. (2010). Referee for *Bulletin of Economic Research*, *International Economic Review*, *International Journal of Industrial Organisation*, *Journal of Economics*, *Journal of Regional Science*, *Portuguese Economic Journal*, and *The B.E. Journal of Theoretical Economics*.
Onderstal, S. (2010). Referee for *Experimental Economics*, *Games and Economic Behaviour*, *Journal of Economic Theory*, *Journal of Economics and Management Strategy*, *Journal of the European Economic Association*, *Journal of Public Procurement*, and *Review of Law & Economics*.
Seldeslachts, J. (2010). Referee for *Review of Law & Economics*.
Soetevent, A.R. (2010). Referee for *American Economic Review*, *Journal of Economic Dynamics and Control*, *Journal of the European Economic Association*, *Journal of Public Economics*, *National Science Foundation*.
Van Cayseele P. (2010). Referee for *Economic Theory*, *Journal of Network Economies*.

Membership of academic committees (including Ph.D. committees outside the FEB)

Soetevent, A.R. (2010, November 18). Invited external member promotion committee of C. Boijke. Promotor: prof. P. Kooreman. University of Groningen.

Research contributions in the media

Hinloopen, J. (2010, 25 oktober). Interview in televisieprogramma Tros Radar.

Hinloopen, J. (2010, 12 november). Interview in Assurantiemagazine.

Soetevent, A.R. (2010, 20 January). Interviewed by BNN Today (about research on Dutch Postcode Lottery) <http://player.omroep.nl/?afIID=10562598>.

Soetevent, A.R. (2010, 10 August). Interviewed by RTL-z (about research on Dutch Postcode Lottery).

http://www.rtl.nl/components/financien/rtlz/miMedia/2010/week32/di_1300_loterij.avi_plain.xml

Soetevent, A.R. (2010, 11 August). Interviewed by Radio 1 Journaal (about research on Dutch Postcode Lottery).

Soetevent, A.R. (2010, 11 August). Interviewed by Simone FM (about research on Dutch Postcode Lottery).

Soetevent, A.R. (2010, 12 August). Interviewed by Radio Noord-Holland (about research on Dutch Postcode Lottery).

Van Cayseele, P. (2010), *Economie: een Inleiding*, Persconferentie met de President van de Europese Gemeenschap.

Grants, prizes and honours

Seldeslachts, J. (2010-2012). EU 7th Framework Career Development Grant on Research Proposal “New Developments in Competition Policy”.

Various activities

Hinloopen, J. (2010). Member Legitimeringspanel HBO-Raad “Kennisbasis Algemene Economie en Kennisbasis Bedrijfseconomie”.

Seldeslachts, J. (2010). Member Expert Committee NMa “Anticipatie op Mededingingstoezicht”.

Soetevent, A.R. (2010) Director of Graduate Studies Tinbergen Instituut; Committee member Research Priority Area Behavioural Economics; Academic Referee for The Netherlands Bureau of Economic Policy Analysis (CPB).

Van Cayseele P. (2009-). Chair, Commissie Economie en Bedrijfskunde, Fonds voor Wetenschappelijk Onderzoek Vlaanderen.

CHAPTER 15: OTHER RESEARCH ECONOMICS

Department: Economics

METIS-code: uva/fee/res/ore/prog

15.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept</i>	<i>Funding</i>
Brouwer, M.T.	dr.	ud	-	-	-	0,25	AE	1
Carchedi, G.	dr	guest	-	-	0,00	-	AE	1
Catalan Aravena, O.	dr	docent	-	-	0,13	0,00	AE	1
Guerriero, C.	dr	ud	-	-	-	0,50	AE	1
Hollanders, D.A.	drs	Ph.D.	-	0,45	-	-	AE	3
Homar, T.	msc	Ph.D.	-	-	-	0,20	AE	3
Knaack, R.K.	dr	guest	-	-	0,00	0,00	AE	1
Lammers, J.	dr	postdoc	-	1,00	-	-	AE	3
Odink, J.G.	dr	uhd	-	0,08	0,08	0,08	AE	1
Pott-Buter, H.A.	dr	hd	0,00	0,00	0,00	-	AE	1
Schouwstra, M.C.	dr	guest	-	-	0,00	-	AE	1
Simatupang, B.N.	dr	guest	0,00	0,00	0,00	0,00	AE	1
Teulings, C.N.	prof dr	hgl	0,20	0,20	-	-	AE	1
Tijdens, K.G.	dr	oz	-	0,30	0,30	0,30	AE	1
Tijdens, K.G.	dr	oz	-	0,50	0,50	0,50	AE	2
Thio, K.B.T.	dr	docent	-	-	0,00	0,00	AE	1
Voort, R.C.W. van der	drs	docent	0,00	0,00	0,00	0,00	AE	1
Vermeylen, K.	dr	ud	-	-	0,00	0,50	AE	1
Wahab, I.	dr	guest	0,00	0,00	0,00	0,00	AE	1
Total 1st flow of funds			0,20	0,58	0,51	1,63		
Total 2nd flow of funds			0,00	0,50	0,50	0,50		
Total 3rd flow of funds			0,00	1,45	0,00	0,20		
Total 1st f.o.f. excl. Ph.D.'s			0,20	0,58	0,96	1,63		
Total all flows of funds			0,20	2,53	1,01	2,33		
Ph.D. students			0,00	0,45	0,00	0,20		

15.2 OUTPUT

Forthcoming

Guerriero, C. (2010). Legal Traditions and Economic Performances: Theory and Evidence. In: Bouckaert, Boudewijn and Gerrit De Geest (eds.), Encyclopedia of Law and Economics, 2nd ed. Cheltenham: Edward Elgar Publishers.

Other Research
Economics

Publications in numbers

<i>AE-Overig</i>				2010
1) Academic publications	a) in refereed journals	A	0	
		B	0	
		Other	4	4
	b) in other journals		0	0
	c) book chapters	A	0	
		B	0	
		Other	0	0
	d) proceedings		1	1
Total				5
2) Books		A	0	0
3) Ph.D. theses			0	0
4) Professional publications			0	0
5) Popular publications			5	5
6) Working papers			16	16
Total				26

Academic publications (excluding publications in/of books) – refereed

Other

- Yerkes, M., Tijdens, K.G. (2010). Social Risk Coverage in Collective Labour Agreements: Empirical Evidence from the Netherlands. *European Journal of Industrial Relations*, 16(4), 369-383
- Timmers, T., Willemsen, T.M., Tijdens, K.G. (2010). Gender diversity policies in universities: a multi-perspective framework of policy measures. *Higher Education*, vol 59 (no 6), 719-735,
- De Pedraza, P., Tijdens, K.G., Muñoz de Bustillo, R., Steinmetz, S. (2010). A Spanish Continuous Voluntary Web Survey: Sample Bias, Weights and Efficiency of Weights. *Revista Española de Investigaciones Sociológicas*, vol 131, pp 109-130
- Batenburg, R., De Beer, P., Mevissen, J., Tijdens, K. (red.) (2010). *Arbeid in crisis?* Den Haag: Boom Lemma uitgevers.

Academic publications (in proceedings) – non-refereed

- Tijdens, K.G. (2010). Measuring Occupations in Worldwide Web-Surveys, In Pavlin, S., Judge, A.N. (eds.) *Development of Competences in the World of Work and Education: Conference Proceedings of the Decowe Conference*, held from 24-26 September 2009 at the Faculty of Social Sciences, University of Ljubljana, pp. 167-172, Ljubljana: Self-regulated network DECOWE.

Academic publications (working- and discussion papers)

- Guerriero, C. (2010). Democracy, Judicial Attitudes and Heterogeneity: the Civil Versus Common Law Tradition. *ACLE Working Papers*, 2010-10.
- Guerriero, C. (2010). The Political Economy of Incentive Regulation: Theory and Evidence from US States. *ACLE Working Papers*, 2010-07.
- Guerriero, C. (2010). Accountability in Government and Regulatory Policies: Theory and Evidence. *ACLE Working Papers*, 2010-08.
- Guerriero, C. (2010). 2010. The Political Economy of (De)Regulation: Theory and Evidence from the U.S. Electricity Market. *ACLE Working Papers*, 2010-06.

Other Research
Economics

- Tijdens, K.G. (2010). Measuring occupations in web-surveys the WISCO database of occupations. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-86.
- Tijdens, K.G., Van Zijl, S., Hughie-Williams, M., Van Klaveren, M., Steinmetz, S. (2010). Codebook and explanatory note on the WageIndicator dataset, a worldwide, continuous, multilingual web-survey on work and wages with paper supplements. Amsterdam, University of Amsterdam, Amsterdam Institute for Advanced Labour Studies, AIAS, *AIAS Working Paper*, 10-102.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010) An overview of women's work and employment in Belarus. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-96.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010). An overview of women's work and employment in Ukraine. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-94.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010) An overview of women's work and employment in Kazakhstan. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-93.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010). An overview of women's work and employment in Azerbaijan. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-92.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010). An overview of women's work and employment in Indonesia. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-91.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010). An overview of women's work and employment in India. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-90.
- Van Klaveren, M., Tijdens, K., Hughie-Williams, M., Ramos Martin, N. (2010). An overview of women's work and employment in Zimbabwe. Amsterdam, University of Amsterdam, *AIAS Working Paper*, 10-97.
- Vermeulen, K. (2010). How Unfounded Microfoundations Pollute our Thinking and Possibly also the World. Universiteit van Amsterdam.
- Vermeulen, K. (2010). Discounting the Distant Future: Why Uncertain Growth Rates Matter and Uncertain Interest Rates don't. Universiteit van Amsterdam.

Popular publications

- Guerriero, C. (2010). When is Regulation More Efficient than Competition? VoxEU.org.
- Tijdens, K.G., Van Klaveren, M. (2010). Werkstress in de gezondheidszorg. *Zeggenschap*, 21 (1), 45.
- Tijdens, K.G., Van Klaveren, M. (2010). Werkstress in de zorg. *Zeggenschap*, 21 (2), 46.
- Tijdens, K.G., Van Klaveren, M. (2010). Loonverschillen. *Zeggenschap*, 21 (3), 43.
- Tijdens, K.G., Van Klaveren, M. (2010) Vakbondslidmaatschap en CAO-dekking. *Zeggenschap*, 21 (4), 39.

Contributions to academic conferences, workshops and seminars

- Dari-Mattiacci, G., and Guerriero, C. (February, 2010). Fiat Lex: Law Making, Politics, and Cultural Heterogeneity in Ancient Rome, Workshop on "Law, Economics and History," ACLE, Amsterdam.
- Guerriero, C. (January, 2010). Democracy, Judicial Attitudes and Heterogeneity: the Civil Versus Common Law Tradition, American Economic Association annual meeting, Atlanta.
- Guerriero, C. (April, 2010). Democracy, Judicial Attitudes and Heterogeneity: the Civil Versus Common Law Tradition, Bonn University Department of Economics seminars, Bonn.

Other Research
Economics

- Guerriero, C. (May, 2010). The Political Economy of (De)Regulation: Theory and Evidence from the U.S. Electricity Market, IEFE-FEEM joint seminars, Milano.
- Guerriero, C. (September, 2010). The Political Economy of (De)Regulation: Theory and Evidence from the U.S. Electricity Market, XXV Journada de Economia Industrial, Madrid.
- Guerriero, C. (September, 2010). The Political Economy of (De)Regulation: Theory and Evidence from the U.S. Electricity Market, XXVII EALE annual meeting, Paris.
- Vermeulen, K. (2010). *The Implications of Unfounded Microfoundations: an Example with a Lot of Pollution*. Universiteit Antwerpen, Departement Economie. Invited lecture.

Other lectures on research

- Guerriero, C. (2010, 2 June). ESNIE 2010 Summer School Invited Lecture: Endogenous Legal and Political Institutions, Cargese, France.

Organisational contributions to conferences, workshops and seminars

- Guerriero, C. (2010, 5 February). Workshop on “Law, Economics and History.” Joint chair and organiser, Amsterdam Center for Law and Economics, Amsterdam.
- Guerriero, C. (2010, 12 March). ACLE-CSEF Workshop on “Law and Economics.” Joint chair and organiser, CSEF, Naples.

Participation in academic networks & fellowships

- Guerriero, C. (2010). Fellow CERRE Research Network.
- Vermeulen, K. (2010). Affiliate Member of the Sloan Industry Studies Program of the Alfred P. Sloan Foundation (New York, U.S.) and the Center for Industry Studies at the University Pittsburgh (Pittsburgh, U.S.).

Referee activities

- Guerriero, C. (2010). Referee for *Journal of Comparative Economics, Review of Law and Economics*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Tijdens, K.G. (2010) Copromotor dissertation 'A Dutch Approach to Flexicurity?', Hester Houwing, University of Amsterdam.
- Tijdens, K.G. (2010) Member Advisory Committee for OECD's PIAAC-survey on literacy, OECD.
- Tijdens, K.G. (2010) Member Advisory Committee for CBS herziening beroepenclassificatie SBI', CBS.
- Tijdens, K.G. (2010) Expert for ISS/Erasmus University, The Hague, on their Database Project "Indices of Social Development" (ORPAS ID 1212), ISS The Hague.
- Tijdens, K.G. (2010) Member dissertation committee 2/12/2010 'A fine balance. The residential context and task division between partners', Edith de Meester, University of Amsterdam.

CHAPTER 16: SEO ECONOMIC RESEARCH

<i>Subprogrammes:</i>	<i>Labour Economics & Education</i>
	<i>Health Economics & Social Security</i>
	<i>Regulation & Competition Policy</i>
	<i>Aviation Economics</i>
	<i>Cost-benefit analysis and Economic Activity</i>
	<i>Market and Government</i>
<i>Programme Director:</i>	<i>Prof. dr. J.J.M. Theeuwes</i>
<i>METIS-code:</i>	<i>uva/fee/seo/seo/prog</i>
<i>JEL-classification:</i>	<i>I, J, L, Q, R</i>
<i>Web-address:</i>	<i>www.seo.nl</i>
<i>VSNU-scores: 2001-2007:</i>	<i>Quality: -, Productivity: -, Relevance: -, Viability: -</i>

16.1 MEMBERS OF THE RESEARCH GROUP AND RESEARCH IN FTES

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Scientific Staff SEO								
Baarsma, B.E.	dr	oz	1,00	1,00	1,00	1,00	SEO	3
Grand, J.B. Le	dr	oz	-	0,71	0,71	-	SEO	3
Kerste, M.W.M.	drz	oz	-	-	1,00	-	SEO	3
Theeuwes, J.J.M.	prof dr	hgl	0,60	0,60	0,50	0,53	SEO	3
Market and Government								
Buiren, K.B. van	drs	oz	-	-	-	0,33	SEO	3
Gerritsen, M.	drs	oz	-	-	-	0,14	SEO	3
Regulation & Competition Policy								
Aalbers, R.F.A.	dr	oz	0,83	-	-	-	SEO	3
Akker, I.J.	MA	oz	-	-	-	0,79	SEO	3
Bremer, S.	drs	oz	1,00	1,00	-	-	SEO	3
Buiren, K.B.	drs	oz	0,71	0,71	-	-	SEO	3
Buiren, K.B.	drs	oz	0,24	0,24	-	-	SEO/AE	1
Janssen, K.	drs	oz	0,80	0,63	0,42	-	SEO	3
Kerste, M.W.M.	drz	oz	-	-	-	1,00	SEO	3
Leenheer, J.	drs	oz	-	0,84	-	-	SEO	3
Leffelaar-Felsö, F.A.	drs	oz	0,60	0,15	-	-	SEO	3
Leffelaar-Felsö, F.A.	drs	Ph.D.	0,40	0,06	-	-	SEO/AE	1
Geffen, S. van	mr	oz	-	-	-	-	SEO	3
Gerritsen, M.	drs	oz	0,95	0,95	0,31	-	SEO	3
Noll, R. van der	dr	oz	-	-	-	1,00	SEO	3
Nooij, M.N. de	drs	oz	1,00	1,00	0,80	-	SEO	3
Poort, J.	drs	oz	0,84	1,00	1,00	1,00	SEO	3
Rosenboom, N.	MSc	oz	-	-	-	0,39	SEO	3
Tieben, L.A.W.	drs	oz	-	0,47	0,84	0,84	SEO	3
Weda, J.N.T.	drs	oz	0,44	1,00	1,00	1,00	SEO	3
Regions & Transport								
Rosenberg, F.A.	drs	oz	0,14	-	-	-	SEO	3
Vegt, C. van der	drs	oz	0,60	0,20	-	-	SEO	3

SEO Economic Research - Theeuwes

<i>Name</i>	<i>Title</i>	<i>Function</i>	<i>Total 2007</i>	<i>Total 2008</i>	<i>Total 2009</i>	<i>Total 2010</i>	<i>Dept.</i>	<i>Funding</i>
Labour Economics & Education								
Berg, E. van den	drs	oz	0,33	1,00	1,00	1,00	SEO	3
Berkhout, E.E.	drs	oz	1,00	1,00	1,00	1,00	SEO	3
Berkhout, P.H.G.	dr	oz	0,16	0,08	-	-	SEO	3
Biermans, M.C.	drs	oz	0,28	-	-	-	SEO	3
Budil-Nadvorníková, H.M.	ir	oz	0,60	0,60	-	-	SEO	3
Graaf, D. de	drs	oz	1,00	1,00	0,84	0,80	SEO	3
Graaf-Zijl, M. de	dr	oz	1,00	0,08	-	-	SEO	3
Heyma, A.O.J.	dr	oz	1,00	1,00	1,00	1,00	SEO	3
Hof, B.J.F.	drs	oz	-	0,95	0,39	-		
Klaveren, C.P.B.J.	drs	oz	1,00	1,00	0,08	-	SEO	3
Smits, F.	drs	oz	0,49	-	-	-	SEO	3
Smid, Th.	MSc	oz	-	-	0,83	0,98	SEO	3
Volkerink, M.D.	MSc	oz	-	-	-	1,00	SEO	3
Werff, D.G. van der	drs	oz	-	0,50	1,00	1,00	SEO	3
Health Economics & Social Security								
Alla, A.	ba	oz	0,33	0,70	-	-	SEO	3
Berden, C.B.	dr	oz	-	0,25	1,00	1,00	SEO	3
Groot, C.M.E.	drs	oz	0,75	-	-	-	SEO	3
Hollanders, D.A.	drs	oz	0,10	-	-	-	SEO	3
Hollanders, D.A.	drs	Ph.D.	0,48	-	-	-	AE	3
Hop, P.J.		oz	0,63	0,63	0,63	0,32	SEO	3
Houkes-Hommes, A.R.B.J.	drs	oz	-	0,84	0,84	0,84	SEO	3
Kerkhofs, M.	dr	oz	-	-	-	0,06	SEO	3
Kok, L.M.	drs	oz	0,88	0,88	0,84	0,84	SEO	3
Niessen, N.	drs	oz	-	0,50	-	-	SEO	3
Sluis, J. van der	drs	oz	0,37	-	-	-	SEO	3
Tempelman, D.C.G.	drs	oz	-	0,33	1,00	0,98	SEO	3
Cost-Benefit Analysis and Economics Activity								
Berg, M. van den	drs	oz	1,00	0,84	0,84	0,56	SEO	3
Dorenbos, R.J	drs	oz	-	0,71	-	-	SEO	3
Dosker, R.	drs	oz	-	-	0,33	1,00	SEO	3
Gietema, B.G.	drs	oz	0,05	-	-	-	SEO	3
Holleman, J.	drs	oz	0,84	0,21	-	-	SEO	3
Koopmans, C.C.	prof. dr.	hgl	-	-	0,26	0,80	SEO	3
Leenheer, J.	dr	oz	0,84	-	-	-	SEO	3
Nooij, M. de	drs	oz	-	-	-	0,68	SEO	3
Risseeuw, P.R.	drs	oz	1,00	1,00	1,00	1,00	SEO	3
Sheikh, O.	mSc	oz	0,61	1,00	0,66	-	SEO	3
Tewes, F.W.	drs	oz	-	-	0,71	0,24	SEO	3
Willebrands, D.	MSc	oz	-	-	-	0,74	SEO	3
Aviation Economics								
Burghouwt, G.	dr	oz	1,00	1,00	1,00	1,00	SEO	3
Kempen, T.	drs	oz	-	-	-	0,14	SEO	3
Lieshout, R.B.T.	drs	oz	1,00	1,00	1,00	1,00	SEO	3
Veldhuis, J.G.	drs	oz	1,00	1,00	0,84	0,80	SEO	3
Wit, J. de	prof drs	hgl	0,80	0,80	0,80	0,33	SEO	3
Yilmaz, H.	drs	oz	-	-	1,00	0,75	SEO	3
Zuidberg, J.	mSc	oz	0,35	1,00	1,00	1,00	SEO	3

	<i>Total 2007</i>	<i>Total 2008</i>	<i>Totaal 2009</i>	<i>Total 2010</i>
Total 1st flow of funds	0,64	0,30	0,00	0,00
Total 2nd flow of funds	0,00	0,00	0,00	0,00
Total 3rd flow of funds	28,40	29,21	27,08	28,88
Total 1st f.o.f. excl. Ph.D.'s	0,24	0,24	0,00	0,00
Total all flows of funds	29,04	29,51	27,08	28,88
Ph.D. students	0,88	0,06	0,00	0,00

16.2 PROGRAMME DESIGN

SEO Economic Research was founded in 1949, as a research institute of the Faculty of Economics at the University of Amsterdam, to encourage applied research. Since the 1980s it has been financially independent from the university, while retaining close links with the academic community.

SEO carries out contract research for ministries and public organisations, private companies and non-profit institutions, nationally and internationally. SEO distinguishes itself from commercial research bureaus by its analytical approach. Modern economic analysis is applied to practical issues. Empirical questions are tackled with the econometrics toolkit.

SEO is not linked to vested interests or political parties and research questions are approached with an independent scientific mindset.

SEO Economic Research is a medium-sized horizontal organisation. It has an academic staff of about 50 economists and econometricists. When a research question has multiple dimensions SEO can call upon specialists from other disciplines – often from within the University of Amsterdam - such as the Amsterdam Institute for Advanced Labour Studies (AIAS) and the Institute for Information Law (IViR).

Structure

SEO Economic Research consists of six research groups or sections organised along fields of economic research. A first section is **Labour Economics & Education** which specialises in labour market, labour market policy, schooling and training research. Research topics deal with employability, transition from school to work, temporary work, re-integration and exit from unemployment, wage differentials, employment benefits, migration, schooling and work and the evaluation of educational policies.

The section **Health Economics & Social Security** analyses developments in healthcare and social security, with research often shaped by the highly regulated nature of these two sectors. This section specialises among others in market analyses, effectiveness and cost-benefit studies and budgeting and costing systems.

Research in the section **Regulation & Competition Policy** concentrates on the design, analysis and evaluation of competition and government intervention. The section deals with issues related to the structure, conduct and performance of markets and sectors, regulation and deregulation, economic aspects of cartels, mergers, market dominance and other topics in the field of competition. It assesses new or established regulations and policy from the perspective of law and economics.

In the section **Cost-benefit analysis and Economic Activity** cost-benefit analysis is not only applied to infrastructural projects but also to a wider area of investment and policy initiatives. The section also has a regional economics component which concentrates on issues of

regional growth, employment and productivity issues, local labour markets and regional mobility. And the section is involved in sector- and industry studies and business dynamics.

Aviation Economics is a section specializing in aviation economics. It advises governments, airlines, airports, financial institutions and other interested parties on the economic issues related to aviation. Aviation Economics activities include operations research, econometric analyses and forecasting, feasibility studies and research into competition and market issues, as well as work in transport and regional economics.

The **Market and Government section** specialises in the economic analysis of state aid and public tenders. Economic organisation and the boundaries between public and private economic activity are other issues that are dealt with in this section.

Organisation

SEO Economic Research is governed by a six-member Executive Board. Day-to-day policy is in the hands of the general director and the scientific director and of the management team, which consists of both directors and the section heads. SEO Economic Research also has an Advisory Board which meets yearly to review its research programme.

16.3 PROGRAMME EVALUATION

Academic publications by researchers at SEO Economic Research are often a spin-off from contract research which is SEO's core activity. This year 27 articles were published in refereed journals or refereed books. The number of refereed publications has been increasing since 2007.

In 2010 SEO researchers published 70 commissioned reports and 65 other publication such as non refereed publications, academic and popular publications and newspaper articles.

In 2010, Dr. Hidenobu Matsumoto from Kobe University, Japan, stayed 3 ½ months (March and August till half of October) with SEO Economic Research, section Aviation Economics for his study related airports and airlines. Dr. Matsumoto did write several papers with the researchers of the section as a result of this stay.

Pere Suau Sanchez from the Autonomous University of Barcelona stayed from September to December 2010 as a guest researcher at the aviation section of SEO Economic Research. He carried out research on connectivity developments in the Spanish and European airport system. His work is part of his Ph.D. research on airports and regions.

16.4 RESOURCES AND FUNDING

SEO Economic Research has set up an internal fund for scientific research (WEO) which allots time to researchers working at SEO and which enables them to prepare papers for scientific publications and to participate in economic conferences. This fund has also a provision to finance time spend on preparing a doctoral dissertation and to participate in (international) economic conferences. Researchers at SEO Economic Research publish regularly in national and international professional journals. Only by publishing and lecturing, a research institute stays 'alert' and keeps abreast of the newest developments in applied economic research. Core activity is contract research and the majority of research funding originates from contract parties.

SEO holds an NEN-EN ISO 9001:2008 quality certificate for Applied Economic Research and Consulting.

16.5 OUTPUT

Key publications

- Baarsma, B. (2010). Kroonverjaardag marktwerking in het notariaat: Tijd voor een feestje? In: Marktwerking in het notariaat; droom of nachtmerrie? *Ars Notariatus*: Deventer: Kluver.
- Bakker, P., Koopmans, C. & Nijkamp, P. (2010). Appraisal of Integrated Transport Policies. In: Givoni, M. & Banister, D. (eds.), *Integrated Transport. From Policy to Practice*, (pp. 117-136). Oxford (UK): Routledge.
- Nooij, M. de, Baarsma, B., Bloemhof, G., Slootweg, H. & Dijk, H. (2010). Development and application of a cost-benefit framework for energy reliability: Using probabilistic methods in network planning and regulation to enhance social welfare: the N-1 rule. *Energy Economics*, 32, (6), 1277-1282.
- Nooij, M. de, Lieshout, R. & Koopmans, C. (2009). Optimal blackouts: Empirical results on reducing the social cost of electricity outages through efficient regional rationing. *Energy Economics*, 31, (3), 342-347.
- Nooij, M. de & Baarsma, B. (2009). Divorce comes at a price: An ex ante welfare analysis of ownership unbundling of the distribution and commercial companies in the Dutch energy sector. *Energy Policy*, 37, (12), 5449-5458.
- Veldhuis, J. (2010). The impact of airline network strategies for airports: the case of Amsterdam Schiphol and Paris Charles de Gaulle. In Rosário Macário & Eddy Van de Voorde (red.) *Critical Issues in Air Transport Economics and Business*, Chapter 10. London: Routledge.
- Wit, J. de & Burghouwt, G. (2010). Slot allocation and use at hub airports, perspectives for secondary trading. In Rosário Macário & Eddy Van de Voorde (red.) *Critical Issues in Air Transport Economics and Business*, Chapter 12. London: Routledge.

Forthcoming

- Suau-Sanchez, P. & Burghouwt, G. (2010). The geography of the Spanish airport system: spatial concentration and deconcentration patterns in seat capacity distribution, 2001-2008. *Journal of Transport Geography*. Due in 2011.

Publications in numbers

SEO				2010
1) Academic publications	a) in refereed journals	A	0	
		B	1	
		Other	19	20
	b) in other journals		71	71
		c) book chapters	A	0
	d) in proceedings	B	4	
		Other	3	7
		Other	0	0
	Total			101
	2) Books	A	0	
B		0		
Other		3	3	
3) Ph.D. theses		0	0	
4) Professional publications		1	1	
5) Popular publications		8	8	
6) Working papers		3	3	
Total			116	

Academic publications (excluding publications in/of books) – refereed

B

- Nooij, M. de, Baarsma, B., Bloemhof, G., Slootweg, H. & Dijk, H. (2010). Development and application of a cost-benefit framework for energy reliability: Using probabilistic methods in network planning and regulation to enhance social welfare: the N-1 rule. *Energy Economics*, 32, (6), 1277-1282.

Other

- Baarsma, B. (2010). Moeilijke marktwerking en meedogenloze mededinging: Een welvaartseconomisch perspectief. *TPEdigitaal*, 4, (1), 147-176.
- Baarsma, B.E. (2009). Tien jaar marktwerking in het notariaat: Een terug- en vooruitblik. *Kwartaalschrift Economie*, 6, (3), 357-395. Garant-Uitgevers nv.
- Baarsma, B.E. (2010). Kabinet-Rutte laat marktwerking links liggen. *Tijdschrift voor openbare financiën*, 42, (4), 246-256.
- Baarsma, B. (2010). Nederland Toezichtland. *Tijdschrift voor Toezicht*, 2010, 1, (2), 3-5.
- Baarsma, B. (2010). Afwegingskader bij het gebruik van zelfreguleringsinstrumenten. *Tijdschrift voor Toezicht*, 1, (3), 7-29.
- Baarsma, B. & Tieben, L.A.W. (2010). Markt en overheid: oplossing zoekt probleem. *Markt & Mededinging*, 2010 (4), 136-144. Boom Juridische uitgever.
- Burghouwt, G. (2010). Book Review: David Starkie (2008) Aviation Markets: Studies in Competition and Regulatory Reform. *European Journal of Transport and Infrastructure Research*, 10, (2), 197-199.
- Eijk, N. van, Poort, J. & Rutten, P. (2010). Legal, Economic and Cultural Aspects of File Sharing. *Communications & Strategies*, 77, (1st Q. 2010), 35-54.
- Koopmans, C. (2010). Kosten en baten van het Centraal Planbureau: verleden, heden en toekomst. *TPEdigitaal*, 4, (3), 19-30.
- Koopmans, C.C. (2010). Zonder prijs geen kwaliteit: de heroverwegingen bij mobiliteit en leefomgeving. *Tijdschrift voor openbare financiën*, 42, (2), 135-144.
- Nooij, M. de, Berg, M. van den, Garretsen, H. & Groot, H. de (2010). MKBA van Handelsbeleid: Een illustratie aan de hand van het Programma Starters op Buitenlandse Markten. *TPEdigitaal*, 4, (1), 108-126.
- Nooij, M. de, Berg, M. van den & Koopmans, C. (2010). Brood of spelen? Kosten-batenanalyse van het WK Voetbal in Nederland. *TPEdigitaal*, 4, (3), 79-100.
- Poort, J.P. & Theeuwes, J.J.M. (2010). Prova d’Orchestra: een economische analyse van het voorontwerp auteurscontractenrecht. *Tijdschrift voor Auters-, Media- en Informatierecht (AMI)*, 34, (5), 137-145.
- Poort, J. & Tieben, L.A.W. (2010). Van Maatstaf naar Maatwerk: een korte geschiedenis van economische regulering. *Tijdschrift voor Toezicht*, 1, (4), 27-44.
- Tieben, B. (2009). De economie van marktwerking in Chicago en Wenen. *TPEdigitaal*, 3, (4), 61-84.
- Tieben, B. (2009). Inleiding: economisch denken in beweging. *TPEdigitaal*, 3, (4), 1-5.
- Tieben, B. & Graaf, D. de (2010). Meer vrijheid voor het hoger onderwijs. *Tijdschrift voor Hoger Onderwijs & Management*, 17, (2), 45-50.
- Theeuwes, J.J.M. (2010). Met dank aan Peter, Dale en Chris. *Tijdschrift voor Arbeidsvraagstukken*, 26, (4), 451-453.
- Veldhuis, J. & Lieshout, R. (2010). The aviadem forecasting model. *Journal of Airport Management*, 4, (4), 374-397.

Academic publications (in/of books) – refereed

B

- Baarsma, B. (2010). Kroonverjaardag marktwerking in het notariaat: Tijd voor een feestje? In: Marktwerking in het notariaat; droom of nachtmerrie? *Ars Notariatus*: Deventer: Kluwer.

- Bakker, P., Koopmans, C. & Nijkamp, P. (2010). Appraisal of Integrated Transport Policies. In: Givoni, M. & Banister, D. (eds.), *Integrated Transport. From Policy to Practice*, (pp. 117-136). Oxford (UK): Routledge.
- Veldhuis, J. (2010). The impact of airline network strategies for airports: the case of Amsterdam Schiphol and Paris Charles de Gaulle. In: Rosário Macário & Eddy Van de Voorde (red.) *Critical Issues in Air Transport Economics and Business*, Chapter 10. London: Routledge.
- Wit, J. de & Burghouwt, G. (2010). Slot allocation and use at hub airports, perspectives for secondary trading. In: Rosário Macário & Eddy Van de Voorde (red.) *Critical Issues in Air Transport Economics and Business*, Chapter 12. London: Routledge.

Other

- Baarsma, B.E. (2010). *Moeilijke marktwerking en meedogenloze mededinging*. Amsterdam: Vossiuspers UvA.
- Baarsma, B.E., Koopmans, C. & Theeuwes, J. (2010). *Beleidseconomie*. Amsterdam: Pallas Publications – Amsterdam University Press.
- Koopmans, C.C. (2010). *Van zacht naar hard: milieueffecten in kosten-batenanalyses*. Amsterdam: Vrije Universiteit.

Academic publications (excluding publications in/of books) – non-refereed

- Akker, I., Noll, R. v.d., Poort, J. & Tewes, F. (2010). Economic contribution of EU industries relying on exceptions and limitations to copyright. *SEO-rapport*, 2010-30. Amsterdam: SEO.
- Akker, I. & Poort, J. (2009). Telefonie in Beeld. De kosten van een landelijke beeldbemiddelingsdienst. *SEO-rapport*, 2009-80. Amsterdam: SEO.
- Akker, I. & Tieben, L.A.W. (2010). Investeren in brandveiligheid. *SEO-rapport*, 2010-78. Amsterdam: SEO.
- Baarsma, B. (2010, 30 March). Financiële tussenpersonen stellen eigen belang voorop in hetze tegen nieuw beloningsmodel. *Me Judice*, 3.
- Baarsma, B. (2010, 2 April). Stop de politisering van marktwerking en de juridisering van mededinging. *Me Judice*, 3.
- Baarsma, B. (2010). Vouchers voor vaardigheden. *SEO-rapport*, 2010-48. M.m.v. J. Theeuwes. Amsterdam: SEO.
- Baarsma, B. (2010). Concurrentieproblemen onderwijsmarkt ten koste van de kenniseconomie. *Economisch Statistische Berichten*, 95, (4596), 669.
- Baarsma, B. (2010, 15 November). Publiek betaalde media moeten zich onderscheiden van commerciële. *Me Judice*, 3.
- Baarsma, B. & Buiren, K. van (2010). Marktafscherming bij forensisch onderzoek. *Economisch Statistische Berichten*, 95, (4599), 758-761.
- Baarsma, B., m.m.v. Risseeuw, P. (2010). Waarvan akte? *SEO-rapport*, 2010-64. Amsterdam: SEO.
- Baarsma, B. & Theeuwes, J. (2010). Publiek belang en de gerechtsdeurwaarder: Van gilde naar professionele publieke dienstverlening. *SEO-rapport*, 2010-32. Amsterdam: SEO.
- Baarsma, B., Theeuwes, J. & Koopmans, C. (2010, 8 May). Met kosten-batenanalyse kiezen tussen falende overheid en onvolmaakte markt. *Me Judice*, 3.
- Baarsma, B., Weda, J. & Wijnbergen, S.J.G. van (2010). Evaluatie ingroeimodel maart 2010: Eindresultaten. *SEO-rapport*, 2010-20. Amsterdam: SEO.
- Berden, C., Dosker, R., Risseeuw, P.A. & Willebrands, D. (2009). Zzp'ers: lust of last?. *SEO-rapport*, 2009-72. Amsterdam: SEO.
- Berden, C.D.A. & Kok, L.M. (2010). Effect kinderopvangtoeslag op arbeidsparticipatie van moeders. *Economisch Statistische Berichten*, 95, (4590), 461-462.
- Berden, C. & Kok, L. (2010). Effecten voedingszorg door LZK-scholen. *SEO-rapport*, 2010-46. Amsterdam: SEO.

- Berden, C. & Kok, L., m.m.v. Witte, I. (2010). De praktijk van waardeoverdracht. *SEO-rapport*, 2010-52. Amsterdam: SEO.
- Berg, E. van den, Berkhout, E. & Werff, S. van der (2010). International Bachelor Law & Economics (IBLE). *SEO-rapport*, 2010-02. Amsterdam: SEO.
- Berg, E. van den, Heyma, A. & Smid, T. (2010). Kosten-batenanalyse verlenging zwangerschaps- en bevallingsverlof: Van 16 weken naar een duur van 18 of 20 weken. *SEO-rapport*, 2010-35. Amsterdam: SEO.
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- Berg, M.R. van den & Risseeuw, P.A. (2009). Sector- en bedrijfsinformatie Sociale Werkgelegenheid en Arbeidsintegratie 2008. *SEO-rapport*, 2009-61. Amsterdam: SEO.
- Berkhout, E. & Berg, E. van den (2010). Bridging the Gap. International Database on Employment and Adaptable Labour. *SEO-rapport*, 2010-01. Amsterdam: SEO.
- Berkhout, E. & Berkhout, P. (2010). Tweede fase leidt niet tot betere aansluiting. *Economisch Statistische Berichten*, 95, (4585), 298-300.
- Berkhout, E. & Smid, T.H. (2009). Hoger opgeleide jongeren in Amsterdam. *SEO-rapport*, 2009-54. Amsterdam: SEO.
- Berkhout, E.E. & Smid, T.H. (2010). Studie & Werk 2010. *SEO-rapport*, 2010-28. Amsterdam: SEO.
- Berkhout, E., Smid, T. & Volkerink, M. (2010). Wat beweegt Kennismigranten. *SEO-rapport*, 2010-03. Amsterdam: SEO.
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- Dosker, R. & Risseeuw, P. (2010). De toekomst van de arbeidsmarkt van de Metropoolregio Amsterdam. *SEO-rapport*, 2010-45. Amsterdam: SEO.
- Dosker, R. & Risseeuw, P. (2010). Quick Scan Haven Amsterdam. *SEO-rapport*, 2010-55. Amsterdam: SEO.
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- Kerste, M. & Kok, L. (2010). Winst in de eigendomsstructuur – eigendom, winstbestemming en zeggenschap binnen ziekenhuizen. *SEO-rapport*, 2010-11. Amsterdam: SEO.
- Kerste, M. & Kok, L. (2010, 13 April). Winstuitkering door ziekenhuizen is niet meer dan logische stap. *Me Judice*, 3.
- Kerste, M., Weda, J. & Rosenboom, N. (2010). Carbon trading. *SEO-rapport*, 2010-65. Amsterdam: SEO.
- Kerste, M., Weda, J. & Rosenboom, N. (2010). Innovations in Financing Environmental and Social Sustainability. *SEO-rapport*, 2010-66. Amsterdam: SEO.
- Kerste, M., Weda, J. & Rosenboom, N. (2010). Sustainable Investment. *SEO-rapport*, 2010-67. Amsterdam: SEO.
- Kerste, M. & Weda, J. (2010). Financing the Transition to Sustainable Energy. *SEO-rapport*, 2010-68. Amsterdam: SEO.
- Kok, L.M. (2010). Effecten van de nieuwe huisartsenbesteding. *Economisch Statistische Berichten*, 95, (4580), 150-151.
- Kok, L., Houkes, A. & Tempelman, C. (2010). De relatie tussen medisch specialisten en het ziekenhuis. *SEO-rapport*, 2010-16. Amsterdam: SEO.
- Kok, L., Tempelman, C., Werff, S. van der & Koopmans, C. (2010). ICT in zorg en onderwijs. *SEO-rapport*, 2010-10. Amsterdam: SEO.
- Koning, J. de, Collewet, M.M.F., Tempelman, C., Berretty, T.Y. & Gravesteijn-Ligthelm, J.H. (2010). Gezondheid en arbeidsgerelateerde baten. *SEO-rapport*, 2010-17. Amsterdam: SEO.

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- Koopmans, C.C. & Tewes, F. (2010). Economische projectbeoordeling Programma Toetsing en Toetsgestuurd leren. *SEO-rapport*, 2010-08. Amsterdam: SEO.
- Koopmans, C., Steg, L., Wee, B. van & Dosker, R. (2010). Second opinion basis gegevens Anders Betalen voor Mobiliteit. *SEO-rapport*, 2010-38. Amsterdam: SEO.
- Koopmans, C., Tieben, B., Berg, M. van den & Willebrands, D. (2010). Investeren in een schone toekomst. *SEO-rapport*, 2010-40. Amsterdam: SEO.
- Koopmans, C. & Kerste, M. m.m.v. Ru, H.J. du (2010). Woningen met winst? *SEO-rapport*, 2010-51. Amsterdam: SEO.
- Koopmans, C. & Tieben, B. (2010). Second Opinion Groen Gas Hub Wijster. *SEO-rapport*, 2010-60. Amsterdam: SEO.
- Noll, R. van der, Nooij, M. de & Tieben, B. (2010). Kwaliteitsregulering levering elektriciteit en de grootverbruiker. Discussie Nota. *SEO-rapport*, 2010-09. Amsterdam: SEO.
- Noll, R. van der, Baarsma, B. & Rosenboom, N. (2010). Van teelt tot schap. *SEO-rapport*, 2010-74. Amsterdam: SEO.
- Noll, R. van der, Baarsma, B., Rosenboom, N. & Weda, J. (2010). Anticipatie op kartel- en concentratietoezicht. *SEO-rapport*, 2010-76. Amsterdam: SEO.
- Poort, J., Akker, I., Baarsma, B. & Hennes, C. (2010). Lotsbestemming. *SEO-rapport*, 2010-62. Amsterdam: SEO.
- Poort, J., Hof, B., Koopmans, C., Blom, M., Bruyn, S. de, Schroten, A., Marlet, G. & Woerkens, C. van (2009). Effecten van kilometerbeprijzing op het bbp. *SEO-rapport*, 2009-76. Amsterdam: SEO.
- Poort, J., Kerste, M., Scavenius, E., Prins, J., Akker, I., Ende, B. van den (TNO), Trommelen, P. (TNO), Coen de Vos, F. (Hulsbergen-Sletering), Doeven, J. (Doeven Radiocommunication Consultancy), Eijk, N. van (Instituut voor Informatierecht) & Rutten, P. (Universiteit Leiden/TNO) (2010). Waarde commerciële radiovergunningen. *SEO-rapport*, 2010-06. Amsterdam: SEO.
- Poort, P. & Koopmans, C. (2010). Kosten-batenanalyses voor BZK. *SEO-rapport*, 2010-18. Amsterdam: SEO.
- Risseeuw, P. (2010). Marktaandeelen volmachtkanaal 2009. *SEO-rapport*, 2010-56. Amsterdam: SEO.
- Risseeuw, P., Kerste, M., Baarsma, B. & Dosker, R. (2010). Evaluatie provisieregels complexe producten. *SEO-rapport*, 2010-44. Amsterdam: SEO.
- Smid, T. & Graaf, D. de (2010). Monitor jonge fiscalisten 2010. *SEO-rapport*, 2010-27. Amsterdam: SEO.
- Snoep, M. & Baarsma, B. (2010, 22 October). Voeg toezichthouders NMa, OPTA, NZa en Consumentenautoriteit samen. *Me Judice*, 3.
- Tempelman, C., Berden, C. & Kok, L. (2010). Kosten en resultaten van re-integratie. *SEO-rapport*, 2010-33. Amsterdam: SEO.
- Theeuwes, J. (2010). De spelregels zijn veranderd. *Economisch Statistische Berichten*, 95, (4576), 13-14.
- Theeuwes, J. (2010). Het wantrouwen van het loonmechanisme. *Economisch Statistische Berichten*, 95, (4591), 500-501.
- Theeuwes, J. (2010). Markten met zoekfricties. *Economisch Statistische Berichten*, 95, (4596), 646-649.
- Tieben, B. (2010, 22 October). Economen hebben meer diepgang dan Achterhuis denkt. *Me Judice*, 3.
- Veldhuis, J. (2010). Het passagierspotentieel van de Luchthaven Twente. *SEO-rapport*, 2010-29. Amsterdam: SEO.
- Veldhuis, J. (2010). Onderbouwing van de passagiersaantallen van de luchthaven Twente in 2030. *SEO-rapport*, 2010-29A. Amsterdam: SEO.

- Volkerink, M., Berkhout, E. & Graaf, D. de (2010). Bèta-loopbaanmonitor 2010. *SEO-rapport*, 2010-71. Amsterdam: SEO.
- Zuidberg, J. (2009). Benchmark Luchthavengelden en overheidsheffingen. *SEO-rapport*, 2009-60. Amsterdam: SEO.
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- Zuidberg, J. & Burghouwt, G. (2010). Luchthaventarieven en de concurrentiepositie van Schiphol. *Economisch Statistische Berichten*, 95, (4582), 214-216.
- Zuidberg, J., Burghouwt, G. & Wit, J. de (2010). Werkgelegenheidsmonitor Lelystad Airport. *SEO-rapport*, 2010-14. Amsterdam: SEO.

Academic publications (in/of books) – non-refereed

- Annema, J.A. & Koopmans, C.C. (2010). Een lastige praktijk: Ervaringen met waarderen van omgevingskwaliteit in de kosten-batenanalyse. In: Koetse, M.J. en P. Rietveld (red.) Economische waardering van omgevingskwaliteit. Casestudies en toepassingen in de MKBA. (pp. 197-213). Den Haag: Sdu.
- Koopmans, C.C. (2010). Mobiliteit en leefomgeving In: Kam, C.A. de, J.H.M. Donders en A.P. Ros (red.) Miljardendans in Den Haag. (pp. 149-167). Den Haag: Sdu.
- Theeuwes, J. & Heyma, A. (2010). Knelpunten op de arbeidsmarkt van de publieke sector. De grote uittocht. Negen essays over de arbeidsmarkt van de onderwijs- en overheidssectoren, (pp. 21-46). Den Haag: Verbond Sectorwerkgevers Overheid; Samenwerkende Centrales Overheidspersoneel; Ministerie van Binnenlandse Zaken en Koninkrijksrelaties.

Academic publications (working- and discussion papers)

- Poort, J. & Theeuwes, J. (2010). Prova d'Orchestra. Een economische analyse van het voorontwerp auteurscontractenrecht. *SEO Discussion Paper 59*. Amsterdam: SEO.
- Nooij, M. de, Berg, M. van den & Koopmans, C. (2010). Bread or games? Social cost-benefit analysis of the World Cup in the Netherlands. *SEO Discussion Paper 60*. Amsterdam: SEO.
- Theeuwes, J. & Koopmans, C. (2010). Het einde van de wet van Okun. *SEO Discussion Paper 61*. Amsterdam: SEO.

Professional publications

- Baarsma, B. (2010). Nieuwe markten, nieuwe diensten? *Notariaat Magazine*, 10,(1), 26-27.

Popular publications

- Baarsma, B. (2010). Geen excuustruzen aan de top. *Checks & Balances*, 6, (2), 29.
- Baarsma, B. (2010). Op weg naar een generatieconflict. *Uitzendwerk*, december 2010, (5), 7.
- Burghouwt, G. (2010). Luchtvaart zoekt balans. *NMagazine*, december 2010, (4), 12.
- Heyma, A., Werff, S. van der & Prins, J. (2010). Inzetbaarheid niet gebaat bij baanmobiliteit. *Over Werk*, 20, (2), 50-55.
- Keizer, M. (2010). Vrouwen aan de top. Interview met B. Baarsma. *Libelle*, (37), 36-38.
- Offerman, A. (2010). Niemand gelukkig met nieuwe aanbestedingswet. Met o.a. K. van Buiren. *Overheidszaken 2011, Binnenlands Bestuur special*, 14-17.
- Theeuwes, J. (2010). Meer werk voor matchmakers. *Uitzendwerk*, juli 2010, (3), 4.
- Theeuwes, J. (2010). Arbeidsmarkt eist heroriëntatie personeelsbeleid. *Gids voor personeelsmanagement*, 89, (5), 20-23.

Contributions to academic conferences, workshops and seminars

- Baarsma, B. (2010, 12 February). Moeilijke marktwerking en meedogenloze mededinging. Een welvaartseconomisch perspectief. Rede uitgesproken bij de aanvaarding van het ambt van bijzonder hoogleraar Marktwerking- en mededingingseconomie aan de Faculteit Economie en Bedrijfskunde van de Universiteit van Amsterdam op 12 februari 2010. Amsterdam. Aula van de UvA, Amsterdam.
- Burghouwt, G. (2010, 7 July). Is the LCC an Independent Sustainable Business Model? Presentation at ATRS 2010 Conference, Porto 6-9 July, Portugal.
- Burghouwt, G. (2010, 8 July). Do Carriers Dominate their Connecting Markets? Presentation at ATRS 2010 Conference, Porto 6-9 July, Portugal.
- Koopmans, C.C. (2010, 4 November). Van zacht naar hard: milieueffecten in kosten-batenanalyses. Rede uitgesproken bij de aanvaarding van het ambt van bijzonder hoogleraar Infrastructuur en Economie, vanwege het Ministerie van Verkeer en Waterstaat, bij de faculteit der Economische Wetenschappen en Bedrijfskunde van de Vrije Universiteit Amsterdam. Aula van de Vrije Universiteit, Amsterdam.
- Lieshout, R. (2010, 8 July). Improving Connectivity at Cairo Airport. Presentation at ATRS 2010 Conference, Porto 6-9 July, Portugal.
- Lieshout, R. (2010, 9 July). Competition from Middle Eastern Carriers: Effects on Ticket Prices. Presentation at ATRS 2010 Conference, Porto 6-9 July, Portugal.
- Matsumoto, H. (2010, 8 July). Effects of Opening Scheduled International Services at Tokyo International Airport on Route Choice Probabilities of Passengers Departing from Japan. Presentation at ATRS 2010 Conference, Porto 6-9 July, Portugal.
- Noll, R. van der (2010, 15 April). Inkoopmacht en CBb-uitspraak LJNBK5729. Presentation for Vereniging voor Mededingingsrecht, Amsterdam.
- Poort, J. & Theeuwes, J. (2010, 11 June). Economisch Perspectief: De auteur als zwakke partij? Presentaion for Vereniging voor Auteursrecht.
- Theeuwes, J. (2010, 12 February). Anatomie van de werkloosheid. Afscheidsrede als hoogleraar toegepast economisch Onderzoek aan de Faculteit Economie en Bedrijfskunde van de Universiteit van Amsterdam, uitgesproken op 12 februari 2010, Aula van de UvA, Amsterdam.
- Theeuwes, J. (2010, 20 January). Evaluatie CPB. Presentatie ten behoeve van de internationale wetenschappelijke visitatiecommissie CPB, Den Haag.
- Theeuwes, J. (2010, 11 February). Stedelijk Arbeidsmarktbeleid in de Randstad. Presentation at the congress “Sterke steden, sterke Randstad, sterk Nederland, Randstad 2040 is nu”, organised by Nicis, Theater Fabriek, Amsterdam.
- Theeuwes, J. (2010, 1 March). Presentation about ‘Baten van de zorg’ at the congress “Gezondheidszorg telt: De baten van de zorg in beeld”, organised by the Ministerie van VWS, Pulchri Studio, Den Haag.
- Theeuwes, J. (2010, 17 May). Presentation about “Werking van de Nederlandse arbeidsmarkt” at the symposium: De Staat van Nederland, organised by the expertise Journalistiek in de Stadsschouwburg Amsterdam.
- Theeuwes, J. (2010, 3 June). Presentation about “Werking van de Nederlandse arbeidsmarkt” the second Invitational Conference Oud London about “Arbeidsmarkt nu en straks” organised by the MarketConcern Van Spaendonck, Oud London, Zeist.
- Theeuwes, J. (2010, 4 June). Presentation about “Marktfalen en overheidsfalen” at Mansholt Debat over Vergroening, organised by the Ministerie van Landbouw, Natuur en Voedselkwaliteit, Den Haag.
- Theeuwes, J. (2010, 8 June). Co-lecture on “Herverdeling in de verzorgingsstaat”, at Workshop about Toekomst van de Solidariteit. Ministerie van Sociale Zaken en Werkgelegenheid, Den Haag.
- Theeuwes, J. (2010, 15 June). Presentation of “Bridging the Gap”, SEO report commissioned by Randstad, Hoofdkantoor Randstad, Diemen.
- Theeuwes, J. (2010, 3 November). Presentation of “Economische kosten en batenanalyse van immigratie” at discussion meeting about “de kosten en baten van immigratie”, Metaforum, cafe Schlemmer, Den Haag.

- Theeuwes, J. (2010, 10 November). Contribution on the ‘Werking van de Nederlandse arbeidsmarkt’ at congress RWI Najaarscongres over “krachtig uit de crisis”, Nieuwe Kerk, Den Haag.
- Theeuwes, J. (2010, 11 November). Contribution on the ‘Arbeidsmarkt van de metropoolregio Amsterdam’ at PAO symposium “De Amsterdamse Paradox”, The Colour Kitchen, gebouw Vliegbasis de Huygens, Amsterdam.
- Theeuwes, J. (2010, 8 December). Contribution on the “Amsterdamse arbeidsmarkt” at the official residence discussion about citizenship and integration, Ambstwonong, Amsterdam.
- Tieben, B. (2010, 12 October). MKBA energietransitie. Presentation at minicongress of Ministerie van EZ.
- Tieben, B. (2010, 23 November). Energietransitie. Presentation for Sociaal-Economische Raad.
- Tieben, B. (2010, 2 December). Waarom komt duurzame energie niet van de grond? Presentation at Nationaal Energieforum.
- Tieben, B. (2010, 7 December). Duurzame energie in een lange termijn perspectief. Presentation at Energy economics seminar van TILEC, NMa en CPB.

Other lectures on research

- Baarsma, B. (2010, 7 March). Haut Talent: Geen kwestie van tobbers maar van toppers. Lezing over de zin en onzin van beleid om vrouwen naar de top te krijgen. Amstel Hotel. Amsterdam.

Participation in academic networks & fellowships

- Baarsma, B.E. (2010-). Bijzonder hoogleraar Marktwerking- en mededingingseconomie, Faculteit Economie en Bedrijfskunde, UvA.
- Baarsma, B.E. (2010-). Non-gouvernementele deskundige namens Nederland in het International Competition Network (ICN).
- Baarsma, B.E. (2010-). Member Vrouwen in zorg.
- Baarsma, B.E. (2010-). Member Academisch Genootschap Aanbesteden.
- Baarsma, B.E. (2010-). Member Koninklijke Vereniging van Staathuishoudkunde.
- Baarsma, B.E. (2010-). Member Kring Amsterdamse Economen.
- Baarsma, B.E. (2010-). Member Economenpanel van BNR Nieuwsradio.
- Baarsma, B.E. (2009- 1 May 2010). Member Intellectual Board Stichting 2100.
- Baarsma, B.E. (2009). Member Taskgroup Toetsen van Referentieniveaus (OCW).
- Baarsma, B.E. (2009-1 maart 2010). Member Selectie- en adviescommissie Stichting De Netwerkschool.
- Baarsma, B.E. (2009). Chairman Commissie verticale integratie in de zorg (VWS).
- Baarsma, B.E. (2007-2009). Member Visitatiecommissie prestaties publieke omroep.
- Baarsma, B.E. (2007-). Member of Vereniging Mededingingsrecht.
- Burghouwt, G. (2004-). Member of the Air Transport Research Society.
- Burghouwt, G. (2010-). Directeur Airneth, wetenschappelijk kennisnetwerk luchtvaart.
- Burghouwt, G. (2010-). Member Scientific Advisory Board, International Centre for Competitiveness Studies in the Air transport Industry (ICCSAI).
- Burghouwt, G. (2010-2011). Member Scientific Advisory Board Nationaal Luchthavencongres.
- Heyma, A. (2004-). Fellow Amsterdam Institute for Advanced Labour Studies.
- Koopmans, C.C. (2005-2010). Member Scientific Advisory Board, SWOV Institute for Road Safety Research.
- Koopmans, C.C. (2008-). Bijzonder hoogleraar Infrastructuur en Economie, Faculteit Economische Wetenschappen en bedrijfskunde, VU University, Amsterdam.
- Koopmans, C.C. (2009-). Chairman Advisory Board, International Master Programme Spatial Transport and Environmental Economics (STREEM), VU University, Amsterdam.

- Noll, R. van der (2009-). Member of Vereniging voor Mededingingsrecht.
 Noll, R. van der (2010-). Member Board of Jong Vereniging voor Mededingingsrecht.
 Theeuwes, J.J.M. (1993-). Chairman Adviescommissie Sociale Statistieken van het CBS.
 Theeuwes, J.J.M. (2007-). Member Economenpanel van BNR Nieuwsradio.
 Theeuwes, J.J.M. (2000-). Member Rekencommissie voor het VWS veld.
 Theeuwes, J.J.M. (2000-). Member Commissie Minimum Lonen van de SER.
 Theeuwes, J.J.M. (2007-). Member Board of Advisers Airneth, Amsterdam.
 Theeuwes, J.J.M. (2009). Member of the Jury van de dr. Hendrik Muller Prijs, KNAW.
 Theeuwes, J.J.M. (2009-). Member of SER commissie Marktwerking en Publiek Belang.
 Theeuwes, J.J.M. (2008-). Member van het Zorg Innovatie Platform, Ministerie van VWS.
 Theeuwes, J.J.M., (2010). Member of the jury for the Vereniging Mededingingsrecht publication prize.
 Wit, J.G. de (2004). Member of the German Aviation Research Society.
 Wit, J.G. de (2001). Member Scientific Board Annual Hamburg Aviation Conference.
 Wit, J.G. de (2004). Member Steering Committee Air Transport Research Society.
 Wit, J.G. de (2004). Member Benelux Inter Universitaire Groepering van Vervoerseconomen (BIVEC).
 Wit, J.G. de (2007). Added expert member Raad van Verkeer en Waterstaat voor Luchtvaartzaken.

Editor or member of editorial board

- Baarsma, B.E. (2009-). Member Editorial Board *Tijdschrift voor Toezicht*.
 Theeuwes, J.J.M. (2007). Member Scientific Advisory Board digital *Tijdschrift voor Politieke Economie (TPE-digitaal)*.
 Theeuwes, J.J.M. (2007). Member Editorial Board *Tijdschrift voor Arbeidsvraagstukken*.
 Theeuwes, J.J.M. (2007). Member Editorial Board *Sociale en Culturele Wetenschappen* van de Amsterdam University Press (AUP).
 Theeuwes, J.J.M. (2008). Member Editorial Board *Me Judice* (www.mejudice.nl).
 Tieben, L.A.W. (2008-). Member Editorial Board digital *Tijdschrift voor Politieke Economie (TPE-digitaal)*.
 Wit, J.G. de (2004-). Member Editorial Board *Journal of Air Transportation*.
 Wit, J.G. de (2004-). Member Editorial Board *Journal of Air Transport Management*.
 Wit, J.G. de (2005-). Member Editorial Board *Tijdschrift voor Vervoerswetenschap*.

Referee activities

- Baarsma, B.E. (2007-). Referee for *Energy Policy*.
 Baarsma, B.E. (2009-). Referee for *Energy*.
 Burghouwt, G. (2007-). Referee for *Transport Policy*.
 Burghouwt, G. (2008-). Referee for *Journal of Transport Geography*.
 Burghouwt, G. (2007-). Referee for *European Journal of Transport & Infrastructure Research*.
 Burghouwt, G. (2009). Referee for *Journal of Transport Economics and Policy*.
 Burghouwt, G. (2009) Referee for *Transport Reviews*.
 Heyma, A. (2009). Referee for *Manchester School*.
 Heyma, A. (2009). Referee for *LABOUR: Review of Labour Economics and Industrial Relations*.
 Heyma, A. (2009). Referee for *Journal of Population Economics*.
 Koopmans, C.C. (2009). Referee for *European Journal of Transport and Infrastructure Research*.
 Noll, R. van der (2010). Referee for *Journal of Economic Behaviour and Organisation*.
 Theeuwes, J.J.M. (2009-). Referee for *Journal of Population Economics*.
 Wit, J.G. de (2004-). Referee for *Journal of Transport Economics and Policy*.
 Wit, J.G. de (2005-). Referee for *Tijdschrift voor Vervoerswetenschap*.

Membership of academic committees (including Ph.D. committees outside the FEB)

- Baarsma, B.E. (2010, 14 January). Member of promotion committee of Drs. M. Varkevisser. Erasmus Universiteit, Rotterdam.
- Baarsma, B.E. (2010). Lid van promotiecommissie, promotie van mevr. E.M.H. Loozen. UvA, Amsterdam.
- Baarsma, B.E. (2010). Lid van promotiecommissie, promotie van dhr. F. de Jong. UvA, Amsterdam.

Research contributions in the media

- Ali, H. & Stoker, E. (2010, 16 October). Werkloze moet. Interview met A. Heyma. De Volkskrant, 2-3.
- Baal, M. van (2010, 25 September). Duurzame energie en kerncentrales lonen. Interview met C. Koopmans. Technisch weekblad, 15.
- Baarsma, B. (2010, 11 January). Paternalistische profielen in het vwo. NRC Handelsblad, 7.
- Baarsma, B. (2010, 29 January). Wet op de vaste boekenprijs moet nu worden afgeschaft. Het Financieele Dagblad, 6.
- Baarsma, B. (2010, 20 February). Stop politisering marktwerking. Het Financieele Dagblad, 7.
- Baarsma, B. (2010, 4 March). Mededingingswet wordt te juridisch toegepast. Het Financieele Dagblad, 9.
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- Baarsma, B. & Goor, G. van den (2010, 2 October). Risicoaverse overheid moet af van reflex om alles in eigen beheer te willen doen. Het Financieele Dagblad, 23.
- Baarsma, B. & Kok, L. (2010, 10 November). Altijd weer die beschuldigende vinger. NRC Next, 18.
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- Baarsma, B. & Manunza, E. (2010, 2 September). Aanbestedingsrecht lijkt markt te wantrouwen. Het Financieele Dagblad, 9.
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- Dikkenberg, R. van der & Sandee, R. (2010, 3 November). Economen sceptisch over kleinere overheid. B. Baarsma over de overheid en markt. Staatscourant, (44-2010), 7.
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Rotterdam The Hague Airport kan met gemak het dubbele aantal vluchten verwerken. NRC Handelsblad, 15.
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- Laan, M. (2010, 16 June). Advies: weg met luiheidsprikkels. Over het SEO rapport waarin J. Theeuwes de krapte op de arbeidsmarkt in de komende 40 jaar schetst. Het Parool, 23.
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- Pels, D. (2010, 10 August). Verminderen van uitstoot loont. C. Koopmans over het investeren in duurzame energie. Trouw, 9.
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- Redactie Leeuwarder Courant (2010, 16 June). Nederland moet meer en slimmer werken. Over het SEO rapport waarin J. Theeuwes de krapte op de arbeidsmarkt in de komende 40 jaar schetst. Leeuwarder Courant, 1.
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- Redactie Me Judice (2010, 26 November). Investeer in ouderen. Interview met J. Theeuwes over de arbeidsmarkt voor ouderen. Me Judice, video.
- Redactie Nederlands Dagblad (2010, 16 June). Nog langer, meer en productiever werken. Over het SEO rapport waarin J. Theeuwes de krapte op de arbeidsmarkt in de komende 40 jaar schetst. Nederlands Dagblad, 7.
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- Stoker, E. (2010, 18 November). Postbedrijf wil overleven, de winst komt later wel. B. Baarsma over de Nederlandse postmarkt. De Volkskrant, 24.
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- Theeuwes, J. (2010, 17 April). Eén zwaluw maakt nog geen zomer. Het Financieele Dagblad, 20.
- Tieben, B. (2010, 21 August). Hoe Jamie en Vinnie rijk werden. Spannend inzicht in de banken crises. Vrij Nederland, 66.
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- Timmers, M. (2010, 4 December). Jammer van WK, maar ook goed. M. de Nooij over het WK. Eindhovens Dagblad.
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- Voort, M. van der (2010, 11 August). Verder kijken dan geld alleen. M. de Nooij en econoom A. Heertje over de kandidatuur van Nederland en België voor het WK 2018. Metro, 2.
- Vos, C. (2010, 30 April). Met maximumhonoraria haalt Klink de marktprikkels juist weg. Interview met L. Kok over de zorgtarieven. De Volkskrant, 28.
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- Zeegers, G. (2010). De kosten van zwangerschapsverlof. Interview met A. Heyma. Arbo magazine, (9), 22-23.

Various activities

- Baarsma, B. (2010, 9 May). De lijsttrekker uitgedaagd: Emile Roemer. Barbara was te gast bij Buitenhof op Nederland 1.
- Baarsma, B.E. (2010-). Member Raad van Commisarissen Loyalis NV (member audit commission).
- Baarsma, B.E. (2010-). Member Raad van Toezicht St. Elisabeth ziekenhuis, Tilburg.
- Baarsma, B.E. (2010-). Member Raad van Toezicht van BNN.
- Baarsma, B.E. (2010-). Member audit committee FNV Bondgenoten.
- Baarsma, B.E. (2010). Regelmatig te gast bij BNR, BNR economenpanel.
- Theeuwes, J. (2010). Regelmatig te gast bij BNR, BNR economenpanel.

APPENDIX I: LIST OF PERSONS, COMMITTEES AND ADDRESSES

Amsterdam School of Economics

Dean Amsterdam School of Economics:	Prof. dr. H.P. Boswijk
Director Graduate School of Economics and ASE-RI:	Prof. dr. H.P. Boswijk
Director College of Economics and Business:	Prof. dr. R. Sloof
Chair Department of Economics:	Prof. dr. R.M.W.J. Beetsma
Chair Department of Quantitative Economics:	Prof. dr. C.H. Hommes

Faculty

Dean FEB:	Prof. dr. E.J. Fischer
Managing director:	S. Goedhard
Director Graduate School of Economics and ASE-RI:	Prof. dr. H.P. Boswijk
Director Graduate School of Business and ABS-RI:	Prof. dr. A. Hodgson
Director College of Economics and Business:	Prof. dr. R. Sloof
Director Executive Programmes:	Prof. dr. J.A.A. van der Veen
Chair Department Business Studies:	Prof. dr. M.J. Ellman
Chair Department of Economics:	Prof. dr. R.M.W.J. Beetsma
Chair Department Quantitative Economics:	Prof. dr. C.H. Hommes

Advisory committee

The Council of Programme Leaders advises the Director ASE-RI on academic issues and research policy. Members of the council are:

Prof. dr J. Kiviet, Prof. dr. ir. N.M. van Dijk, Dr. ir. F.O.O. Wagener, Prof.dr.ir. M.H. Vellekoop, Prof. dr. W.J. den Haan, Prof. dr. J.B. Davis, Dr. M.J. Boumans, Prof. dr. F.A.A.M. van Winden, Prof. dr. P. van Cayseele, Prof. dr. J. Hinloopen & Prof. dr. J.J.M. Theeuwes.

Programme Leaders

UvA-Econometrics:	Prof.dr. J.F. Kiviet
Operations Research & Management:	Prof.dr. N.M. van Dijk
Equilibrium, Expectation & Dynamics:	Dr. ir. F.O.O. Wagener
Actuarial Science:	Prof.dr.ir. M.H. Vellekoop
Macro and International Economics	Prof.dr. W.J. den Haan
Human Capital:	Prof.dr. J. Hartog
History & Methodology of Economics:	Prof.dr. J.B. Davis & Dr. M.J. Boumans
Experimental and Political Economics:	Prof.dr. F.A.A.M. van Winden
Industrial Organisation, Competition policies & Regulation:	Prof.dr. P. van Cayseele & Prof. dr. J. Hinloopen
Amsterdam Economics (SEO):	Prof.dr. J.J.M. Theeuwes

Address

University of Amsterdam
 Amsterdam School of Economics Research institute
 Roetersstraat 11
 1018 WB Amsterdam
 T +31-20-525 4276
 F +31-20-525 4254
 resam-ase@uva.nl
 www.ase.uva.nl/asereasearch

Appendix

Name	Programme	Department	E-mail
Abbink, K.	EXP	AE	k.abbink[at]uva.nl
Adan, I.J.B.F.	OR	KE	I.J.B.F.Adan[at]uva.nl
Akker, I.J.	SEO	AE	I.Akker[at]seo.nl
Antonio, K.	ACT	KE	K.Antonio[at]uva.nl
Anufriev, M.	EED	KE	M.Anufriev[at]uva.nl
Assenza, T.	EED	KE	T.Assenza[at]uva.nl
Baarsma, B.	SEO	SEO	b.baarsma[at]seo.nl
Balvers, M.P.J.M.	HUM	AE	
Bao, T.	EED	KE	T.Bao[at]uva.nl
Bault, N.G.J.	EXP	AE	N.G.J.Bault[at]juvt.nl
Beetsma, R.	Mint	AE	R.M.W.J.Beetsma[at]uva.nl
Berden, C.B.	SEO	SEO	c.berden[at]seo.nl
Berg, E van den	SEO	SEO	e.vandenberg[at]seo.nl
Berg, M. van den	SEO	SEO	m.vandenberg[at]seo.nl
Berkhout, E.E.	SEO	SEO	e.berkhout[at]seo.nl
Bethlehem, J.G.	UVAE	KE	J.G.Bethlehem[at]uva.nl
Booij, A.S.	HUM	AE	A.S.Booij[at]uva.nl
Boswijk, H.P.	UVAE	KE	H.P.Boswijk[at]uva.nl
Boumans, M.J.	HME	AE	M.J.Boumans[at]uva.nl
Broda, S.A.	UVAE	KE	S.A.Broda[at]uva.nl
Brouwer, M.T.	OVO	AE	M.T.Brouwer[at]uva.nl
Buccioli, A.	Mint	AE	
Buiren, K.B.	SEO	SEO	k.vanbuiren[at]seo.nl
Buiter, W.	Mint	AE	buiterw[at]ebrd.com
Bun, M.	UVAE	KE	M.J.G.Bun[at]uva.nl
Burghouwt, G.	SEO	SEO	g.burghouwt[at]seo.nl
Buser, T.	HUM	AE	T.Buser[at]uva.nl
Catalán Aravena, O.O.	OVO	AE	O.O.CatalanAravena[at]uva.nl
Cayseele, P. van	IO	AE	P.J.G.vanCayseele[at]uva.nl
Ceyhan, P.	Mint	AE	S.P.Ceyhan[at]uva.nl
Chevalier, A.	HUM	AE	
Coonen, M.H.E.	HUM	AE	
Cornea, A.	EED	KE	A.Cornea[at]uva.nl
Cramer, J.S.	UVAE	KE	akesec[at]fee.uva.nl
Cui, J.	ACT	KE	J.Cui[at]uva.nl
Damsma, D.F.	HME	AE	D.F.Damsma[at]uva.nl
Davis, J.B.	HME	AE	J.B.Davis[at]uva.nl
Dhaene, J.	ACT	KE	JA.Dhaene[at]econ.kuleuven.ac.be
Dijk, N.M. van	OR	KE	N.M.vanDijk[at]uva.nl
Diks, C.	EED	KE	C.G.H.Diks[at]uva.nl
Doarest, A.	IO	AE	A.Doarest[at]uva.nl
Does, R.J.M.M.	OVO	KE/IBIS	R.J.M.M.Does[at]uva.nl
Dogan, G.	EXP	AE	G.Dogan[at]uva.nl
Dominguez Martinez, S.	HUM	AE	S.DominguezMartinez[at]uva.nl
d'Onofrio, F.	HME	AE	F.Donofrio[at]uva.nl
Dosker, R.	SEO	SEO	R.Dosker[at]seo.nl
Drange, N.E.	HUM	AE	N.E.Drange[at]uva.nl
Duin, C.W.	OR	KE	C.W.Duin[at]uva.nl
Erdmann, T.P.	OVO	IBIS	T.P.Erdmann[at]uva.nl
Ewijk, C. van	Mint	AE	C.vanEwijk[at]uva.nl
Ewijk, R.J.G. van	HUM	AE	R.J.G.vanEwijk[at]uva.nl
Fernandes da Mata, T.J.	HME	AE	T.Mata[at]uva.nl

Appendix

Gaag, J. van der	HUM	AE	J.vanderGaag[at]uva.nl
Gao, Z.	UVAE	KE	z.gao[at]uva.nl
Garcia Gallego, J.A.	EXP	AE	J.A.GarciaGallego[at]uva.nl
Garderen, K.J. van	UVAE	KE	K.J.vanGarderen[at]uva.nl
Gerritsen, M.	SEO	SEO	m.gerritsen[at]seo.nl
Giersbergen, N.P.A. van	UVAE	KE	N.P.A.vanGiersbergen[at]uva.nl
Giuliodori, M.	Mint	AE	M.Giuliodori[at]uva.nl
Gooijer, J.G. de	UVAE	KE	J.G.deGooijer[at]uva.nl
Goovaerts, M.J.	ACT	KE	Marc.Goovaerts[at]econ.kuleuven.ac.be
Graaf, D. de	SEO	SEO	d.degraaf[at]seo.nl
Grand, J.B. Le	SEO	SEO	h.legrand[at]seo.nl
Groot Ruiz, A.W. de	EXP	AE	A.W.deGrootRuiz[at]uva.nl
Groot, W.J.N.	HUM	AE	W.J.N.Groot[at]uva.nl
Guerrero	OVO	AE	C.Guerrero[at]uva.nl
Haan, M. de	HUM	AE	M.deHaan1[at]uva.nl
Haan, Th. De	EXP	AE	T.deHaan[at]uva.nl
Haan, W.J. den	Mint	AE	w.j.denhaan[at]uva.nl
Haastrecht, A. van	ACT	KE	A.Haastrecht@uva.nl
Hartog, J.	HUM	AE	J.Hartog[at]uva.nl
Heerden, A. van	HUM	AE	A.vanHeerden[at]uva.nl
Heijnen, P.	EED	KE	P.Heijnen[at]uva.nl
Heyma, A.O.J.	SEO	SEO	a.heyma[at]seo.nl
Hidalgo, D.	HUM	AE	D.Hidalgo[at]uva.nl
Hinloopen, J.	IO	AE	J.Hinloopen[at]uva.nl
Homar, T.	OVO	AE	T.Homar[at]uva.nl
Hombres, C.H.	EED	KE	C.H.Hombres[at]uva.nl
Hontelez, J.A.M.	OR	KE	J.A.M.Hontelez[at]uva.nl
Hoogduin, L.	Mint	AE	L.H.Hoogduin[at]uva.nl
Hop, P.J.	SEO	SEO	peter.hop[at]seo.nl
Houkes-Hombres, A.R.B.J.	SEO	SEO	A.Houkes[at]seo.nl
Hsieh, C.	HUM	AE	C.M.Hsieh[at]uva.nl
Hu, X.	EXP	AE	x.hu[at]uva.nl
Huang, J.	HUM	AE	J.Huang[at]uva.nl
Jager, H.	Mint	AE	H.Jager[at]uva.nl
Janssen, M.J.J.	ACT	KE	M.Janssen[at]uva.nl
Jolink, A.	HME	AE	A.Jolink[at]uva.nl
Joseph, A.S.	ACT	KE	A.S.Joseph1[at]uva.nl
Kaas, R.	ACT	KE	R.Kaas[at]uva.nl
Kastoryano, S.P.	HUM	AE	S.Kastoryano[at]uva.nl
Kempen, T.	SEO	SEO	T.Kempen[at]seo.nl
Kemper, B.P.H.	OVO	IBIS	B.P.H.Kempera[at]uva.nl
Kerkhofs, M.	SEO	SEO	
Kerste, M.W.M.	SEO	SEO	M.Kerste[at]seo.nl
Kirchner, M.	Mint	AE	M.Kirchner[at]uva.nl
Kiseleva, T.	EED	KE	T.Kiseleva[at]uva.nl
Kiviet, J.F.	UVAE	KE	J.F.Kiviet[at]uva.nl
Klaassen, F.J.G.M.	Mint	AE	F.J.G.M.Klaassen[at]uva.nl
Kleibergen, F.R.	UVAE	KE	Frank_Kleibergen[at]brown.edu
Klein, A.A.B.	UVAE	KE	A.A.B.Klein[at]uva.nl
Knaack, R.K.	OVO	AE	
Knaap, T.	Mint	AE	T.Knaap[at]uva.nl
Kok, L.M.	SEO	SEO	l.kok[at]seo.nl
Koopmans, C.C.	SEO	SEO	C.Koopmans[at]seo.nl
Koster, M.A.L.	EED	KE	M.A.L.Koster[at]uva.nl

Appendix

Kriwoluzky, D.	Mint	AE	
Kuné, J.B.	ACT	KE	J.B.Kune[at]uva.nl
Lammers, J.	HUM	AE	J.Lammers[at]uva.nl
Leefmans, N.	Mint	AE	N.J.Leefmans[at]uva.nl
Leffelaar-Felsó, F.A.	IO	AE	F.A.Felso[at]uva.nl
Lieshout, R.B.T.	SEO	SEO	R.Lieshout[at]seo.nl
Linde, J.	EXP	AE	J.Linde[at]uva.nl
Lokkerbol, J.	OVO	IBIS	J.Lokkerbol[at]uva.nl
Lorié, J.A.	Mint	AE	J.A.Lorie[at]uva.nl
Lozej, M.	Mint	AE	M.Lozej[at]uva.nl
Maas, H.B.J.B.	HME	AE	H.B.J.B.Maas[at]uva.nl
Maassen van den Brink, H.	HUM	AE	H.MaassenvandenBrink[at]uva.nl
Masaoutis, A.	HME	AE	A.Masaoutis[at]uva.nl
Massaro, D.	EED	KE	D.Massarof[at]uva.nl
Mast, J. de	OVO	KE/IBIS	J.deMast[at]uva.nl
Mazza, J.	HUM	AE	J.Mazza[at]uva.nl
Mohammadian-Moghayer, S.	EED	KE	S.Mohammadianmoghayer[at]uva.nl
Morgan, M.S.	HME	AE	m.morgan[at]lse.ac.uk
Noll, R. van der	SEO	SEO	R.vanderNoll[at]seo.nl
Nooij, M. de	SEO	SEO	m.denooij[at]seo.nl
Nunez Queija, R.	OR	KE	R.NunezQueija[at]uva.nl
Odink, J.G.	OVO	AE	J.G.Odink[at]uva.nl
Offerman, T.J.S.	EXP	AE	T.J.S.Offerman[at]uva.nl
Omeno Sanchez, A.I.	Mint	AE	
Onderstal, A.M.	IO/EXP	AE	A.M.Onderstal[at]uva.nl
Oomen, R.C.A.	UVAE	KE	R.C.A.Oomen[at]uva.nl
Oosterbeek, H.	HUM	AE	H.Oosterbeek[at]uva.nl
Ophem, J.C.M. van	UVAE	KE	J.C.M.vanOphem[at]uva.nl
Pelloux, B.	EXP	AE	B.Pelloux[at]uva.nl
Plat, H.J.	ACT	KE	H.J.Plat[at]uva.nl
Ploeg, F. van der	Mint	AE	rick.vanderploeg[at]economics.ox.ac.uk
Plug, E.J.S.	HUM	AE	E.J.S.Plug[at]uva.nl
Poort, J.	SEO	SEO	j.poort[at]seo.nl
Praag, B.M.S. van	HUM	AE	B.M.S.vanPraag[at]uva.nl
Praag, C.M. van	HUM	AE	C.M.vanPraag[at]uva.nl
Pradhan, M.P.	HUM	AE	M.P.Pradhan[at]uva.nl
Ramer, R.	EED	KE	R.Ramer[at]uva.nl
Reuten, G.A.T.M.	HME	AE	G.A.T.M.Reuten[at]uva.nl
Rijckevorsel, J.L.A.	ACT	KE	J.L.A.vanRijckevorsel[at]uva.nl
Risseeuw, P.	SEO	SEO	p.risseeuw[at]seo.nl
Romp, W.E.	Mint	AE	W.E.Romp[at]uva.nl
Ronner, A.E.	ACT	KE	A.E.Ronner[at]uva.nl
Rosenboom, N.	SEO	SEO	N.Rosenboom[at]seo.nl
Rosendahl Huber, L.	HUM	AE	L.Rosendahlhuber[at]uva.nl
Rosero Moncayo, J.A.	HUM	AE	J.A.RoseroMoncayo[at]uva.nl
Schabert, A.	Mint	AE	A.Schabert[at]uva.nl
Schimizu, K.	EXP	AE	
Schliesser, E.S.	HME	AE	E.S.Schliesser[at]uva.nl
Schoonhoven, M.	OVO	IBIS	M.Schoonhoven[at]uva.nl
Schram, A.J.H.C.	EXP	AE	A.J.H.C.Schram[at]uva.nl
Sedláček, P.	Mint	AE	P.Sedlacek[at]uva.nl
Seldeslachts, J.W.	IO	AE	J.W.Seldeslachts[at]uva.nl
Siemens, F.A. von	HUM	AE	F.A.vonSiemens[at]uva.nl
Simatupang, B.N.	OVO	AE	B.N.Simatupang[at]uva.nl

Appendix

Sloof, R.	HUM	AE	R.Sloof[at]juva.nl
Sluis, H.J. van der	OR	KE	H.J.vanderSluis[at]juva.nl
Smid, Th.	SEO	SEO	T.Smid[at]seo.nl
Smrkolj, G.	IO	AE	G.Smrkolj[at]juva.nl
Soetevent, A.R.	IO	AE	A.R.Soetevent[at]juva.nl
Sonnemans, J.	EXP	AE	J.H.Sonnemans[at]juva.nl
Stakenas, P.	UVAE	KE	P.Stakenas[at]juva.nl
Stel, A.J. van der	HUM	AE	A.J.vanderStel[at]juva.nl
Sterk, V.	Mint	AE	V.Sterk[at]juva.nl
Stoltenberg, C.A.	Mint	AE	C.A.Stoltenberg[at]juva.nl
Svorenck, A.	HME	AE	A.Svorenck[at]juva.nl
Tamerus, J.H.	ACT	KE	J.H.Tamerus[at]juva.nl
Tempelman, D.C.G.	SEO	SEO	c.tempelman[at]seo.nl
Teulings, C.N.	Mint	AE	C.N.Teulings[at]juva.nl
Tewes, F.W.	SEO	SEO	
Theeuwes, J.J.M.	SEO	SEO	J.J.M.Theeuwes[at]juva.nl
Thio, K.B.T.	OVO	AE	K.B.T.Thio[at]juva.nl
Tieben, L.A.W.	SEO	SEO	b.tieben[at]seo.nl
Tijdens, K.G.	OVO	AE	K.G.Tijdens[at]juva.nl
Tsutsui, Y.	EXP	AE	
Tuinstra, J.	EED	KE	J.Tuinstra[at]juva.nl
Tyszler, M.	EXP	AE	M.Tyszler[at]juva.nl
Ule, A.	EXP	AE	A.Ule[at]juva.nl
Veelen, C.M. van	EXP	AE	C.M.vanVeelen[at]juva.nl
Veen, A. van der	EXP	AE	a.vanderveen[at]juva.nl
Veestraeten, D.	Mint	AE	D.J.M.Veestraeten[at]juva.nl
Veldhuis, J.G.	SEO	SEO	j.veldhuis[at]seo.nl
Veldhuizen, R.R.	EXP	AE	R.R.vanVeldhuizen[at]juva.nl
Vellekoop, M.	ACT	KE	M.H.vellekoop[at]juva.nl
Vermeylen, K.	OVO	AE	K.Vermeylen[at]juva.nl
Volgenant, A.	OR	KE	A.Volgenant[at]juva.nl
Volkerink, M.D.	SEO	SEO	M.Volkerink[at]seo.nl
Voort, R.C. van der	OVO	AE	R.C.W.vanderVoort[at]juva.nl
Vos, S.J.	Mint	AE	S.J.Vos[at]juva.nl
Wagener, F.	EED	KE	F.O.O.Wagener[at]juva.nl
Wahab, I.	OVO	AE	I.Wahab[at]juva.nl
Wakker, P.P.	EXP	AE	Wakker[at]few.eur.nl
Wal, J. van der	OR	KE	J.vanderWal[at]juva.nl
Wansbeek, T.J.	UVAE	KE	T.J.wansbeek[at]juva.nl
Webbink, D.	HUM	AE	H.D.Webbink[at]juva.nl
Weda, J.N.T.	SEO	SEO	j.weda[at]seo.nl
Welie, E.A.A.M. van	HUM	AE	E.A.A.M.vanWelie[at]juva.nl
Went, R.	HME	AE	R.C.P.M.Went[at]juva.nl
Werff, D.G. van der	SEO	SEO	s.vanderwerff[at]seo.nl
Wijnbergen, S.J.G. van	Mint	AE	S.J.G.vanWijnbergen[at]juva.nl
Willebrands, D.	SEO	SEO	D.Willebrands[at]seo.nl
Willems, T.	Mint	AE	T.Willems[at]juva.nl
Willemse, W.J.	ACT	KE	W.J.Willemse[at]juva.nl
Wind, J. de	Mint	AE	J.deWind[at]juva.nl
Winden, F.A.A.M. van	EXP	AE	F.A.A.M.vanWinden[at]juva.nl
Wit, J.G. de	SEO	SEO	J.G.Dewit[at]juva.nl
Witte, K. de	HUM	AE	K.deWitte[at]juva.nl
Wolf, I.F. de	HUM	AE	I.F.deWolf[at]juva.nl
Yang, Y.	EXP	AE	Y.Yang[at]juvt.nl

Appendix

Yilmaz, H.	SEO	SEO	
Zaheer, S.	Mint	AE	S.Zaheer[at]uva.nl
Zeppini-Rossi, P.	EED	KE	P.Zeppini[at]uva.nl
Zhu, M.	EED	KE	M.Zhu[at]uva.nl
Zu, Y.	UVAE	KE	Y.zu[at]uva.nl
Zuidberg, J.	SEO	SEO	j.zuidberg[at]seo.nl

APPENDIX II: ABBREVIATIONS

AAE	Aviation Economics (SEO cluster)
ABS	Universiteit van Amsterdam Business School
ABS-RI	Universiteit van Amsterdam Business School Research Institute
ACE	Amsterdam Center for Entrepreneurship
AE	Algemene Economie (afdeling) Economics (department)
AER	American Economic Review
Afd	Afdeling Department
AgBS	Amsterdam graduate Business School, now ABS
AgBS-RI	Amsterdam graduate Business School Research Institute, ABS-RI
AIAS	Amsterdams Instituut voor Arbeidsstudies Amsterdam Institute for Labour Studies
AIID	Amsterdam Institute for International Development
AIO	Assistent in Opleiding (promovendus) Ph.D.-student
AR	Autoregression
ARCH	Autoregressive Conditional Heteroskedasticity
ASE	Universiteit van Amsterdam School of Economics
ASE-RI	Amsterdam School of Economics Research institute
BIB	Bibliotheek Library
Burs	Bursaal Ph.D.-student
B/R	Books & Reports
BS	Business Studies (department)
CAPM	Capital Asset Pricing Model
CB	Central Bank
CeNDEF	Center for Nonlinear Dynamics in Economics and Finance
CentER	Center for Economic Research, Tilburg University
CESifo	Joint subsidiary company of Center for Economic Studies at the University of Munich and the Ifo Institute for Economic Research.
CEPR	Centre for Economic Policy Research
CIS	Commonwealth of Independent (countries)
CPNSS	Centre for Philosophy of Natural and Social Sciences
CPB	Centraal Plan Bureau Central Planning Bureau
CPI	Consumer Price Index
CREED	Center for Research in Experimental Economics and Political Decision Making
CSCA	Cognitive Science Center Amsterdam
CUP	Chicago University Press
DNB	De Nederlandsche Bank The Dutch Central Bank
Drs	Doctorandus (Dutch equivalent of master title)
EARIE	European Association for Research in Industrial Economics
EC	European Commission
ECB	European Central Bank
ECN	Energieonderzoek Centrum Nederland

Appendix

EMU	European Monetary Union
ENABLE	European Network for the Advancement of Behavioural Economics
ENCORE	Economics Network for Competition & Regulation
ESB	Economisch-Statistische Berichten (journal)
EU	European Union
EUR	Erasmus Universiteit Rotterdam Erasmus University Rotterdam
EZ	(Ministerie van) Economische Zaken Ministry of Economic Affairs
FEB	Faculty of Economics and Business
FEE	Faculty of Economics and Econometrics (Former FEB)
FEZ	Financieel-Economische Zaken Financial Department
FGV	Fundacao Getulio Vargas
FTE	Full Time Employment (equivalent)
FIG	Facultaire Informatiseringsgroep Computer & Information Technology Services
FZ	Facilitaire Zaken Facilities & Services
GDP	Gross Domestic Product
GLM	Generalized Linear Mixed Models
GOA	Geconcentreerde OnderzoeksActie
GMM	Generalized Method of Moments
HGL	Hoogleraar Professor
IAA	International Actuarial Association
IAS	International Accounting Standards
IBNR	Incurred but not reported
ICCAM	International Congress on Computational and Applied Mathematics
IEC	In- & Externe Communicatie Internal and External Communication
IME	Insurance: Mathematics and Economics (journal)
IMF	Internationaal Monetair Fonds International Monetary Fund
ICA	Industrial Economics, Competition & Antitrust (programme)
IO	Industrial Organisation
IPN	Inflation Persistence Network
IZA	Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor
JEL	Journal of Economic Literature
KE	Kwantitatieve Economie (afdeling) Quantitative Economics (department)
KNAW	Koninklijke Nederlandse Akademie van Wetenschappen
KUL	Katholieke Universiteit Leuven Catholic University Leuven
LNMB	Landelijk Netwerk Mathematische Besliskunde
LSE	London School of Economics
METIS	Research Information Database (formerly OZIS)
MSc	Master of Science
MUB	Wet Modernisering Universitair Bestuur (law on the modernizing of university governance)
NAKE	Netwerk Algemene en Kwantitatieve Economie

Appendix

NMa	Nederlandse Mededingings autoriteit Dutch Competition Authority
NS	Nederlandse Spoorwegen Dutch Railways
NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek Netherlands Organisation for Scientific Research
NWO-MaG	NWO-Maatschappij & Gedrag NWO-Social and behavioural sciences
NWO-ISW	NWO-Internationalisering Sociale Wetenschappen NWO fund for Internationalization of Social Sciences
NTU	Nanyang Technological University
OBP	Ondersteunend & Beheerspersoneel Support staff
ONB	Onbekend (tijdschriften) Publications with no ranking
OZ	Onderzoeker Researcher
OVO	Overig Onderzoek Non-programme research
OWI	Onderwijsinstituut Teaching Institute
OZI	Onderzoekinstituut Research Institute
PDOC	Postdoctoral fellow
Ph.D.	Philosophy Doctor
PL	Personele lasten Costs of personnel
Postdoc	Postdoctoral fellow
PPI	Produder Price Index
PZ	PersoneelsZaken Personnel Department
RBC	Risk Based Capital
RTN	Research Training Networks (EU)
RuG	Rijksuniversiteit Groningen Groningen University
S&P	Standard & Poor
SCHOLAR	Schooling, Labour Market and Economic Development
SCE	Society for Computational Economics
Secr.	Secretariaat Secretariat
SEO	Stichting voor Economisch Onderzoek Amsterdam Economics
SGP	Stability and Growth Pact
SHUFE	Shanghai University of Finance and Economics
STREP	Specific Targeted Research or Innovation Project
SWOT	(Analysis of) Strengths, Weaknesses, Opportunities & Threats
TAR	Threshold Autoregression
TI	Tinbergen Instituut Tinbergen Institute
TIER	Top Institute for Evidence based Education Research
UCL	Université Catholique de Louvain
UD	Universitair Docent Assistant Professor
UHD	Universitair Hoofddocent

Appendix

	Associate Professor
UMTS	Universal Mobile Telecommunications System
USAID	United States Agency for International Development
UvA	Universiteit van Amsterdam
VAR	Vector Autoregression
VENI	NWO Research grant for young researchers
VIDI	NWO Research grant
VICI	NWO Research grant
VSNU	Vereniging van Samenwerkende Nederlandse Universiteiten Association of Universities in the Netherlands
VU	Vrije Universiteit Amsterdam VU University Amsterdam
VWS	(Ministerie van) Volksgezondheid, Welzijn en Sport Ministry of Health Welfare and Sport
WP	Wetenschappelijk Personeel Faculty

University of Amsterdam
Amsterdam School of Economics - Research Institute
Roeterstraat 11
1018 WB Amsterdam

T +31 20 525 4276
E ase-ri@uva.nl
I www.ase.uva.nl/aseresearch