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The Research Institute

RESam
CHAPTER 1: INSTITUTIONAL REVIEW

1.1. MISSION STATEMENT
RESAM has the following mission statement.

* RESAM 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.

* RESAM facilitates and promotes research by faculty members of the FEE to foster the academic ideal of intertwined university research and teaching.

RESAM (Research in EconomicS and econometrics Amsterdam), is one of the two research institutes of the Faculty of Economics & Econometrics; the other being the research institute of the Amsterdam graduate Business School (AgBS-RI). It was established in 1998 after the MUB (Wet Modernisering Universitair Bestuur (law on the modernizing of university management)) came in effect and it covers the wide area of economics and econometrics as can be seen from the names of the two Departments that employs its researchers: Algemene Economie (AE, economics) and Kwantitatieve Economie (KE, Quantitative Economics).

Research is organised in Research Programmes, directed by 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.

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

1.2. ALLOCATING RESOURCES
The total faculty time budget available in the FEE, after deducting time for administrative positions (department chairpersons, curriculum co-ordinators, institute directors), is divided between the two research Institutes, RESAM and AgBS-RI. In principle time is equally allocated to teaching and to research. Departments are compensated by the research institute (RESAM for AE and KE) and the teaching institute (OWI) for research and teaching tasks the department provides. Faculty members in the AE and KE departments are annually assigned time for research on the basis of their publication records in the past three years. In this way RESAM tries to stimulate faculty to increase the quality and quantity of their output.
Publications are graded by quality level of the outlet. For journals, RESAM distinguishes

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

- **B**: **good international level**
  Publications in B level journals meet high analytic and methodological standards but have far less influence on direction and standards for future research.

- **C**: **international refereed journals**
  These journals satisfy the minimum norm of aiming for an international audience, applying blind refereeing, and publish in an accessible language. Analytical and methodological standards satisfy a generally accepted minimum level.

- **D**: **other, non-refereed and refereed**

RESAM has drawn up a list of rankings of publication outlets (journals, publishing houses, conference proceedings, see the RESAM website www.fee.uva.nl/resam). 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, a B-level for 50 points, and a C-level for 25 points in 2000 and 2001. Individual authors of a publication with n authors each get a share of \( \frac{2}{1+n} \) points of the publication. The weight for C-level publications is being linearly reduced in three steps, with a resulting weight of zero for research published in 2004. The new system has become operational for the research time assignment of the calendar year 2004 which has been calculated in 2003 on the basis

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* As of January 1, 2005 prof.dr. Hessel Oosterbeek is RESAM director
** Prof.dr. Corn Teulings succeeded prof.dr. H. Reutenkamp in May 2004.
of points earned by output published in 2000-2001-2002, for in 2002 a C publication counted for 16.67 points (2/3*25) for the first time. The system will be fully implemented when research time is allocated for 2008, on the basis of results from 2004-2005-2006, three consecutive years in which a C publication does not yield points. Research time assigned to individuals is related to publication points over the past three years as follows:

<table>
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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.

RESAM stimulates concentration of the faculty’s research in Research Programmes also by other means (such as an annual amount for conference visits and other academic activities to the research programmes).

At least once a year RESAM hosts a meeting of the Council of Programme Leaders to discuss the results of the past year and plans for the future. The Director of the research institute, furthermore, has contact with the Dean on a regular basis.

1.3. STRATEGY AND POLICY

After the VSNU Quality Assessment of Research in 1995, the Faculty started a process of realigning its research efforts by reducing the amount of research programmes. Before this assessment there were 25 programmes but in the next Quality Assessment (2001) only 14 programmes were submitted for evaluation. Several programmes in economics and econometrics were merged while research in the fields of marketing and management were discontinued. Thereafter the faculty has successfully focused its research programme even further. In 2002 the AgBS-RI was established to stimulate research in business studies (with the three former RESAM programmes of Accounting, Organisations and Society, Corporate Finance and Financial Systems and Information Management). RESAM continued with eight research programme plus the SEO.²

RESAM 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 Faculties management, but develops in an open competitive environment. General policy issues are discussed at the annual convocation of the Council of Programme Directors.

¹ In 2005 a new research programme will be established: ENCORE/IO. This small programme conducts research in the field of Industrial Organization, with an emphasis on issues of competition and regulation.
² The SEO has a rather special status. It is a foundation for commercial contract research which seeks to benefit from interaction with academic research. By special agreement SEO is compensated for publication in the international academic community and is also considered as one of RESAMs research programmes.
Box 1: Research Highlight: Harro Maas. Representing Economic Phenomena

Over the past years research in history and methodology of economics at our faculty has focussed importantly on modelling and measurement practices in economics. Margaret Morrison and Mary Morgan’s *Models as Mediators* (CUP, 1999) was the first collection of essays in which modelling practices in economics and natural sciences were compared and analysed. It comprised, among others, work of Marcel Boumans, Geert Reuten and our close collaborators at LSE at the Centre for Philosophy of Natural and Social Sciences (CPNSS), and already has become a standard reference for philosophers and methodologists of the natural and social sciences.

An important message of this collection of essays is that models function as instruments that serve representational and measuring functions both at once, much like the thermometer serves as a representation of temperature by measuring its value. This simple insight underlies research of Marcel Boumans and of myself over the past years, research that has culminated recently in the publication of two books, Marcel’s *How Economists Model the World into Numbers* (Routledge, 2005), and my own *William Stanley Jevons and the Making of Modern Economics* (CUP, May 2005). Though conceptually there are many points of commonality between the books of Marcel and myself, for the purpose of this highlight, I will limit myself to my own book.

My book is a thoroughly reworked version of my thesis (2001), that greatly benefited from an NWO supported three month visit at Clare Hall, Cambridge. In it, I explore the intellectual and social resources Jevons drew upon to revolutionize economic theory and method. The book delves into the different styles of scientific investigation that were current in Victorian England. These styles can be roughly characterised by the different stances that were taken on issues like the relation of (passive field) observations to (active laboratory) experiments, the relation of mind to matter, and its implications for the notorious issue of free will, and - perhaps most importantly - the relation of material instruments to symbolic means of analysis. To summarize a much longer history briefly: Jevons's revolution in economics is better understood against the background of the newly emerging experimental methods in physiology and psychophysics, than as a mathematical rendition of Bentham's calculus of pleasure and pain. Jevons clearly dismissed introspection as unscientific and aimed to show to economists how means of representation of economic phenomena current in the other sciences could be applied to economics as well. His use of mathematics makes more sense once we understand the obsession of Victorians like Charles Babbage and Augustus De Morgan with machinery and symbolic algebra - this obsession feeds Jevons's own work in meteorology and symbolic logic as well, but it was completely incomprehensible to the towering Victorian philosopher and economist John Stuart Mill who heavily relied on introspection as the alpha and omega of the moral sciences, including political economy. However, it should be emphasized that representational practices create (economic) phenomena as well, as the business cycle first became a (still disputed) phenomena, once it was graphed, and similar holds for Jevons's accomplishments.

In my present research I explore the relation between concept formation and representational practices in more detail for the early and late twentieth century. I am interested in particular in how recent boundary crossings between the neurological sciences and economics transform the conceptual and visualising tools of economics, and how these transformations change the notion of evidence for theories. I pursue this research in close cooperation with the interdisciplinary research project "The History of Scientific Observation" of the Max Planck Institut für Wissenschaftsgeschichte at Berlin, and with the Leverhulme Trust funded research project at LSE Travelling Facts. As for our own group, it feeds into our current interest in the vagaries of the notion of rationality in twentieth century economics.
**CHAPTER 2: INPUT**

Personnel policy and human resource management is the domain of the department chair. Although, using the system to allocate research time described above, RESAM encourages the department to hire good researchers and to stimulate faculty to increase the quality and quantity of academic publications, it cannot exert direct influence on personnel policy.

### 2.1. RESEARCHERS AND OTHER PERSONNEL

The tables below give some information on RESAM faculty. Table 1 shows that between 2001 and 2003 total research capacity has expanded. This development was almost entirely due to increases in the so-called second flow of funds. In 2004 we experienced reductions in both first and second flow capacity; this was only partially compensated by an increase in third flow funding. Table 2 shows that trends differ somewhat across research groups.

Most faculty are in the ranks of professor and Ph.D. students. The number of post-docs has increased substantially, to 20, in 2002 and 19 in 2003. In 2000 only 11 postdocs worked at the FEE and their numbers were even less in the years before. In 2004 their number has decreased sharply again and only 12 postdocs remained at the FEE.

#### Table 1: Research Staff at institutional and programme level

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<td>WP 1 (first flow of funds, excl. Ph.D.’s)</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>WP 2 (second flow of funds, excl. Ph.D.’s)</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>WP 3 (third flow of funds, excl. Ph.D.’s)</td>
<td></td>
<td>24.70</td>
<td>24.70</td>
<td>24.70</td>
<td>28.74</td>
</tr>
<tr>
<td>Ph.D. students</td>
<td></td>
<td>1.00</td>
<td>1.00</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td><strong>Total Research staff</strong></td>
<td></td>
<td>25.70</td>
<td>25.70</td>
<td>25.50</td>
<td>29.54</td>
</tr>
</tbody>
</table>
2.2. RESOURCES, FUNDING AND FACILITIES

In 2004 the second research institute of the FEE, AgBS-RI, formally established in 2002, was financially separated from RESAM and received its own funding. This explains the rather large differences between 2004 and the previous two years. Actual incomes (realisation) were substantially higher than expected (budget) primarily due to the fact that RESAM has been very successful in attracting external funding in 2004.

Table 3: Budget 2004 RESAM

<table>
<thead>
<tr>
<th>Category</th>
<th>2004*</th>
<th>2003</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Grants</td>
<td>3.8</td>
<td>4.2</td>
<td>5.3</td>
</tr>
<tr>
<td>External sources</td>
<td>1.0</td>
<td>1.6</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td>4.8</td>
<td>5.8</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Expenditures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>academic staff</td>
<td>3.7</td>
<td>3.8</td>
<td>5.5</td>
</tr>
<tr>
<td>administrative staff</td>
<td>0.8</td>
<td>0.6</td>
<td>0.7</td>
</tr>
<tr>
<td>other</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>personnel (pl)</td>
<td>4.4</td>
<td>4.5</td>
<td>6.3</td>
</tr>
<tr>
<td>other (non-staff)</td>
<td>0.5</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td>4.9</td>
<td>5.6</td>
<td>7.7</td>
</tr>
</tbody>
</table>

As can be seen in table 4 only a very small part of RESAM funds is allocated to non-staff cost centres. Most of this non-staff funding goes to the Tinbergen Institute where it is used to cover the expenses of courses for Ph.D. students and is used to organize seminars for fellows.

Besides allocating funds to fixed cost-centres to meet obligations made in the past, the remainder of RESAM non-staff funds is distributed over the research programmes. This is done on the basis of 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.
Table 4: Funding and expenditure at institutional level

<table>
<thead>
<tr>
<th>1st flow of funds</th>
<th>Budget 2004</th>
<th>Exploitation 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESAM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73001 WP Resam</td>
<td>2,039,987-</td>
<td>2,095,411-</td>
</tr>
<tr>
<td>73002 Promovendi Resam</td>
<td>996,798-</td>
<td>707,706-</td>
</tr>
<tr>
<td>73011 OBP Resam</td>
<td>411,920-</td>
<td>473,115-</td>
</tr>
<tr>
<td>73036 Magazine</td>
<td>2,000-</td>
<td></td>
</tr>
<tr>
<td>73037 Inaugural lectures</td>
<td>2,000-</td>
<td>3,286-</td>
</tr>
<tr>
<td>73039 Bonus for Ph.D. students</td>
<td>2,000-</td>
<td>455-</td>
</tr>
<tr>
<td>73040 Other costs</td>
<td>4,000-</td>
<td>6,387-</td>
</tr>
<tr>
<td>73041 Tinbergen Research Institute</td>
<td>91,831-</td>
<td>103,812-</td>
</tr>
<tr>
<td>73042 Tinbergen graduate school</td>
<td>113,000-</td>
<td>120,166-</td>
</tr>
<tr>
<td>73043 Tinbergen Fellows</td>
<td>16,000-</td>
<td></td>
</tr>
<tr>
<td>73044 Ph.D. networks</td>
<td>15,700-</td>
<td>15,599-</td>
</tr>
<tr>
<td>73047 Organisation seminars</td>
<td>2,000-</td>
<td>1,182-</td>
</tr>
<tr>
<td>73051 Scholar</td>
<td>15,000-</td>
<td>34,829</td>
</tr>
<tr>
<td>73056 Data collection</td>
<td>22,800-</td>
<td>24,716-</td>
</tr>
<tr>
<td>73095 Income Resam</td>
<td>5,031,000</td>
<td>4,933,784</td>
</tr>
<tr>
<td>73099 Allocated to AgBS-RI</td>
<td>1,368,622-</td>
<td>1,368,624-</td>
</tr>
<tr>
<td><strong>Programme funding</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010031 Econometrics</td>
<td>10,800-</td>
<td>7,517</td>
</tr>
<tr>
<td>2010032 Operations Research</td>
<td>5,400-</td>
<td>579</td>
</tr>
<tr>
<td>2010033 Actuarial Sciences</td>
<td>3,375-</td>
<td>2,787-</td>
</tr>
<tr>
<td>2010034 Transformation of Europe</td>
<td>12,825-</td>
<td>4,045</td>
</tr>
<tr>
<td>2010035 Methodology, History of Econ.</td>
<td>3,375-</td>
<td>1,180</td>
</tr>
<tr>
<td>2010036 Human Capital</td>
<td>14,175-</td>
<td>1,853</td>
</tr>
<tr>
<td>2010037 Experimental Political Econ.</td>
<td>11,475-</td>
<td>17,101-</td>
</tr>
<tr>
<td>2010038 CeNDEF*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results

|             | 118,083- | 43,438 |

* Funds for the programme Equilibrium, Expectations & Dynamics were added to the CeNDEF project. Exploitation of projects is only calculated at the termination of the project.
For economists it is very natural to condition on economic variables, e.g. to condition on income when analysing expenditure. Regression functions, for example, are by definition conditional expectations and conditioning is fundamental in quantifying economic relations. The situation becomes more subtle, however, when income itself is regarded as a random variable with a distribution depending on parameters. Conditioning then requires weak exogeneity of the explanatory variables and no feedback is allowed from expenditure back to income. Definitions of exogeneity can be put in terms of factorisations of the likelihood and valid conditioning depends on the mathematical structure of the model under investigation.

In applied economics we further condition to make statements about the accuracy of estimates. The accuracy depends on the sample available. When we have a small sample, with very little variation in e.g. income, than it is hard to estimate the effect of income on expenditure and the reported standard error should reflect this. In the linear regression model this leads to a reported variance of the estimator inversely proportional to the variance in the explanatory variables, \( \sigma^2 (X'X)^{-1} \). This is a conditional expression given \( X \), and calculated \textit{ex-post} after the sample has been observed, and is not an \textit{ex-ante} average over all possible values of \( X \). Our research program, which is sponsored by the KNAW and the FEE, is concerned with conditioning variables that are not necessarily economic in nature, but are exogenous and informative about the ex-post accuracy of estimation and inference. Ex-post because two realizations from an identical data generating process can contain very different information about the parameters, as with large and small samples or with widely spread versus highly concentrated incomes in the example above.

As a more interesting example consider the Purchasing Power Parity (PPP) hypothesis, which in its weak form implies that log real exchange rate between two countries must be stationary, even if log prices and the log nominal exchange rate are non-stationary. In a paper titled “Conditional Inference in the Cointegrated Vector Autoregressive Model” with Sophocles Mavroeidis\(^1\) we investigate equilibrium relationships between non-stationary variables and the speed of return to equilibrium. If the economic system is always in equilibrium, we cannot possibly estimate the speed of adjustment. The accuracy with which we can estimate the adjustment coefficient will thus depend on the variation around the equilibrium set. We cannot condition on this variation since the adjustment estimate is itself a function of this variation and this variation is not exogenous.

Our solution for an alternative conditioning statistic is based on the observation that the model is curved\(^2\). This implies, as we have shown in previous work, that (a) there are sensitive regions in the sample space (where Hessian of the likelihood is nearly singular) (b) there is an embedding model. This provides us with a mathematical structure that we can exploit by constructing a test of the maintained model against the embedding. In combination with an indicator of the sensitive region we define a new statistic that is nearly exogenous and indicative of the ex-post accuracy of the estimator. The inferential procedures we propose conditional on this statistic are much more reliable. For instance, unconditional confidence intervals can have a terrible coverage probability of 68% instead of claimed 95%, whereas our procedures almost have the correct coverage level, irrespective of the value of this statistics.

This is just one of many applications of general principles derived in the research program, which in this PPP example leads to valid inference even in cases where the return to equilibrium is very slow.

\(^1\) Sophocles was attracted from Oxford to the project as a postdoctoral research fellow. He recently took up a tenure track position at Brown University in the US. We are about to appoint another postdoc. Cesar Ariza has recently joined as a PhD student and is working on likelihood based techniques for conditional inference.

\(^2\) There are many interesting intricacies and technicalities which we also investigate. The analysis of curved models requires non-standard (non-Riemannian) geometry and various techniques based on exact finite sample theory and higher order asymptotic expansions can be expressed in differential geometrical terms.
CHAPTER 3: CURRENT STATE OF AFFAIRS

3.1. PROCESSES IN RESEARCH, INTERNAL AND EXTERNAL COLLABORATION
RESAM allocates resources, after evaluating past performance. RESAM stimulates and facilitates application for external funding (NWO, KNAW, EU). In general, the research institute tries to stimulate and active research environment, by a financing 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.

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. RESAM basically monitors and controls by rewarding output.

Another way in which RESAM creates a stimulating research environment is by sponsoring and participating in the Tinbergen Institute (TI). Two other Dutch universities (Erasmus University and Free 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 (mostly weekly) seminar series (see box 3 for all RESAM seminars) and publishing a discussion paper series.

Box 3: Seminar series organised by and in co-operation with RESAM

<table>
<thead>
<tr>
<th>Seminar Series</th>
<th>Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UvA-Econometrics Workshops</strong></td>
<td>Kees Jan van Garderen</td>
</tr>
<tr>
<td><strong>TI Econometrics seminars</strong></td>
<td>Kees Jan van Garderen &amp; Charles Bos</td>
</tr>
<tr>
<td><strong>KAFEE Lunch Seminars</strong></td>
<td>Marcos Poplawski-Ribeiro, Valentin Panchenko &amp; Erik Feijen</td>
</tr>
<tr>
<td><strong>Amsterdam Research Group in History and Methodology of Economics Seminars</strong></td>
<td>Harro Maas</td>
</tr>
<tr>
<td><strong>Economics Colloquia</strong></td>
<td>Franc Klaassen, Maurice Bun, Aljaž Ule &amp; Florian Wagener</td>
</tr>
<tr>
<td><strong>Tinbergen Labour Seminar Series</strong></td>
<td>Erik Plug, Bas van der Klaauw &amp; Pieter Gautier</td>
</tr>
<tr>
<td><strong>ENCORE Seminars and Workshops</strong></td>
<td>Jeroen Hinloopen</td>
</tr>
<tr>
<td><strong>CREED-Tinbergen seminar series in Institution and Decision Analysis</strong></td>
<td>Arno Riedl</td>
</tr>
</tbody>
</table>

As a graduate school, the Tinbergen Institute, initiated some major changes in 2003. With the introduction of the Bachelor-Master structure in the Netherlands the TI has chosen to offer a two-year research master (Master of Philosophy in Economics). These two years are basically part of a five-year Ph.D. track. Up until last year most Dutch Ph.D. students started their work after four years of university education. The first year of our Ph.D. students’ four-year term usually consisted of additional courses at the Tinbergen Institute which left three years for actual research. The new master will be an integration of this ‘old first year’ together with the last ‘normal university year’. Instead of 4-4 track (which usually was a 4-1-3 track) there will now emerge a 3-2-3 system. The advantage of this system is that the new TI-master offers students an excellent research-oriented two-year programme with good opportunities to meet top-level supervisors (TI-fellows).
Recently an international peer review committee consisting of prof. Dale Jorgenson, prof. David Hendry, prof. Arie Kapteyn, prof. Robert Merton and prof. Torsten Persson judged that the level of instruction in the core courses is comparable to the first-year program in leading graduate schools in economics in the UK and North America.

The number of students starting a Ph.D. training within RESAM was very uneven in recent years (ten projects started in 2004 (four of these on external funding), two in 2003, 21 in 2002 and two in 2001). Probably only three projects will start in 2005. The jump from 2001 to 2002 was due to postponing entry as a result of a new system of financial support. The strong drop in 2003 and 2004 was a consequence of a financial crises 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.

Table 5: Ph.D. graduations by cohort*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects started</td>
<td>24</td>
<td>11</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>16</td>
<td>16</td>
<td>15</td>
<td>13</td>
<td>134</td>
</tr>
<tr>
<td>Graduated within 60 months</td>
<td>0.63</td>
<td>0.82</td>
<td>0.85</td>
<td>0.54</td>
<td>0.62</td>
<td>0.69</td>
<td>0.38</td>
<td>0.40</td>
<td>0.08</td>
<td>56%</td>
</tr>
<tr>
<td>Graduated within 60 months</td>
<td>10/15</td>
<td>6/9</td>
<td>5/11</td>
<td>3/7</td>
<td>3/8</td>
<td>10/11</td>
<td>5/6</td>
<td>3/6</td>
<td>1/1</td>
<td>45/74</td>
</tr>
<tr>
<td>Average duration to completion in months</td>
<td>0.67</td>
<td>0.66</td>
<td>0.45</td>
<td>0.43</td>
<td>0.38</td>
<td>0.91</td>
<td>0.83</td>
<td>0.50</td>
<td>1.00</td>
<td>65%</td>
</tr>
</tbody>
</table>

As can be seen in table 5, on average, graduates needed 60 months from start of the contract to actual graduation. If a thesis is 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 for the first 56%, compared to a formal minimum of some 54 months is not bad. Reason for real concern is the overall low percentage of graduations (56%). It is, however, expected that this figure will rise when the new Tinbergen-system, in which excellent master-students receive a comprehensive two-year research-training programme before entering the Ph.D., will have become operational.

In 2004 43 Ph.D. students were working on different projects at RESAM. Funding for six of these 43 projects were terminated. One student decided not to continue the Ph.D., five others are now finalizing their thesis. We expect them to graduate in 2005. Furthermore 10 new projects were initiated last year (five of them with external funding).

3.2. ACADEMIC REPUTATION

In 2003, CentER, the research institute in economics of Tilburg University, again drew up a ranking of Dutch economists and one of Dutch institutes and repeated this exercise in 2004. FEE ranked 3rd, one place higher than the previous year, overtaking the VU. UvA also closed in on the EUR which occupies the second position. The number of FEE-researchers in the Top 40 also rose: nine FEE researchers (seven in 2003) were listed in the Top 40 of Dutch economists, CREEDs Peter Wakker taking the third position.

A ranking based on weighted publications exploits only one dimension of research performance. A ranking of European academic institutions in 1999, based on articles published in the ten most prestigious international journals from 1991 to 1996, has FEE ranking 17th. This puts FEE ahead of all other Dutch institutions: Tilburg (19), Maastricht (37), Erasmus (42), Groningen (55), Leiden (58), Nijmegen (81), Utrecht (97) and the Free University (111). Output is not scaled by size of the institute. The top ranking institution (LSE) has published almost 400 AER (American Economic

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

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.

Review) equivalent pages, the top-ten all publish in excess of 140 AER equivalent pages. FEE published 86, Tilburg 80 pages, and all other Dutch institutions below 40 pages.

A ranking published in 2003, drawn up for the European Economic Association, puts the FEE at rank 10 in Europe. The ranking covers the period 1995-1999 and is based on thirty prestigious journals. 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).

As table 6 indicates RESAM faculty members take up many positions as editors or associate editors of international journals. Membership of editorial boards is also frequent.

Table 6: Editorial Positions

<table>
<thead>
<tr>
<th>Name</th>
<th>Editorship</th>
<th>Journal</th>
<th>Ranking</th>
<th>IF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethlehem, J.</td>
<td>Member editorial panel</td>
<td><em>Journal of the Royal Statistics Society, Series A</em></td>
<td></td>
<td>1.068</td>
</tr>
<tr>
<td>Dhaene, J.</td>
<td>Associate editor</td>
<td><em>Insurance: Mathematics and Economics</em></td>
<td>A</td>
<td>0.614</td>
</tr>
<tr>
<td>Ellman, M.J.</td>
<td>Associate editor</td>
<td><em>Cambridge Journal of Economics</em></td>
<td>B</td>
<td>0.217</td>
</tr>
<tr>
<td>Ewijk, C. van</td>
<td>Editor</td>
<td><em>De Economist</em></td>
<td>B</td>
<td>0.267</td>
</tr>
<tr>
<td>Goeree, J.K.</td>
<td>Associate editor</td>
<td><em>Games and Economic Behavior</em></td>
<td>A</td>
<td>0.919</td>
</tr>
<tr>
<td>Goosier, J.G. de</td>
<td>Editor-in-chief</td>
<td><em>International Journal of Forecasting</em></td>
<td>B</td>
<td>0.598</td>
</tr>
<tr>
<td>Goovaerts, M.J.</td>
<td>Editor</td>
<td><em>Insurance: Mathematics and Economics</em></td>
<td>A</td>
<td>0.614</td>
</tr>
<tr>
<td>Goovaerts, M.J.</td>
<td>Editor</td>
<td><em>Journal of Computational and Applied Mathematics</em></td>
<td>B</td>
<td>0.567</td>
</tr>
<tr>
<td>Groot, W.</td>
<td>Member editorial board</td>
<td><em>Social Indicators Research</em></td>
<td>A</td>
<td>0.398</td>
</tr>
<tr>
<td>Hartog, J.</td>
<td>Member editorial board</td>
<td><em>Economics of Education Review</em></td>
<td>B</td>
<td>0.473</td>
</tr>
<tr>
<td>Hartog, J.</td>
<td>Member editorial board</td>
<td><em>Labour Economics</em></td>
<td>B</td>
<td>0.409</td>
</tr>
<tr>
<td>Hinloopen, J.</td>
<td>Co-editor</td>
<td><em>Review of Industrial Organization</em></td>
<td>B</td>
<td>0.307</td>
</tr>
<tr>
<td>Hommes, C.</td>
<td>Associate editor</td>
<td><em>Computational Economics</em></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Hommes, C.</td>
<td>Editor</td>
<td><em>Journal of Economic Dynamics and Control</em></td>
<td>A</td>
<td>0.690</td>
</tr>
<tr>
<td>Hommes, C.</td>
<td>Associate editor</td>
<td><em>Macroeconomic Dynamics</em></td>
<td>B</td>
<td>0.729</td>
</tr>
<tr>
<td>Hommes, C.</td>
<td>Associate editor</td>
<td><em>Nonlinear Science</em></td>
<td></td>
<td>1.615</td>
</tr>
<tr>
<td>Hommes, C.</td>
<td>Associate editor</td>
<td><em>Quantitative Finance</em></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Kaas, R.</td>
<td>Managing editor</td>
<td><em>Insurance: Mathematics and Economics</em></td>
<td>A</td>
<td>0.614</td>
</tr>
<tr>
<td>Kleibergen, F.R.</td>
<td>Advisory editor</td>
<td><em>Economics Letters</em></td>
<td>B</td>
<td>0.337</td>
</tr>
<tr>
<td>Kuiper, E.</td>
<td>Associate editor</td>
<td><em>Feminist Economics</em></td>
<td>B</td>
<td>0.250</td>
</tr>
<tr>
<td>Morgan, M.S.</td>
<td>Member editorial board</td>
<td><em>History of Political Economy</em></td>
<td>A</td>
<td>0.142</td>
</tr>
<tr>
<td>Oosterbeek, H.</td>
<td>Member editorial board</td>
<td><em>Economics of Education Review</em></td>
<td>B</td>
<td>0.473</td>
</tr>
<tr>
<td>Praag, C.M. van</td>
<td>Associate editor</td>
<td><em>Small Business Economics</em></td>
<td>B</td>
<td>0.534</td>
</tr>
<tr>
<td>Schram, A.</td>
<td>Editor</td>
<td><em>Experimental Economics</em></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Sonnemans, J.</td>
<td>Member editorial board</td>
<td><em>Quantitative Finance</em></td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Sonnemans, J.</td>
<td>Member editorial board</td>
<td><em>Journal of Economic Psychology</em></td>
<td>B</td>
<td>0.750</td>
</tr>
<tr>
<td>Theeuwes, J.</td>
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<td><em>Labour Economics</em></td>
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6 [http://cwis.kub.nl/~few/few2/nieuws/Eurotop.htm](http://cwis.kub.nl/~few/few2/nieuws/Eurotop.htm)
3.3. OVERVIEW OF RESULTS

Figure 2: Number of publication 1996-2004

![Graph showing number of publication 1996-2004]

A: A-publications, B: B-publications, C: C-publications, B/R: Books and reports, ONB: Unknown (not ranked)

Figure 2 shows a slow but steady increase in the number of A publications during 1996-2002 and a slight decrease in the last two years.\(^7\) We should note however, that the ranking of publications is not constant over time. A systematic re-evaluation of journal rankings was first applied to the publications of the year 2000. Due to this re-evaluation the number of unknown (ONB) publication has been reduced to zero. The reduction in 2004 is due to the application of stricter rules for admitting unranked journals to the RESAM list.

Note also that as of 2002 publications refer to RESAM only whereas before they included the output of the research programmes of the AgBS-Rl (Amsterdam graduate Business School-Research Institute).

Table 7: Aggregated results of the institute\(^8\)

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Output in different outlets by research programme is shown in table 7.

\(^7\) Due to a miscalculation the number of publications in the year 1999 (as published in the Annual Report 1999 and the Annual Report 2000) was much too high (for 1999 41 A, 70 B, 80 C, 72 B/R and 2 ONB were given). The figures and tables in this report (as well as those in the Annual Report 2001) show the correct numbers for all years.

\(^8\) As of last year, only publications of faculty on which their UvA-affilition is mentioned, will be counted in the tables and figures. The total number of Academic Publications (books) includes monographs as well as chapters in books. In 2004 one monographs was published by an A-level publisher and two by non-refereed publishers. Publications in proceedings are counted in the Academic Publications (excl. books) section.
The number of dissertations has dropped to six in 2003 and four in 2004. This was mainly due to the fact that rather many dissertations were successfully defended in 2001 and 2002. As the hiring rate fluctuated over the years, contract expirations are also very uneven. It again has to be noted here that as of 2002 dissertations refer to RESAM only whereas before they included the output of the research programmes of the research institute of the AgBS. It is expected that numbers will again start to increase in 2005.
CHAPTER 4: ANALYSIS, PERSPECTIVES AND EXPECTATIONS FOR THE INSTITUTE

4.1. SWOT DIRECTOR RESAM
The major strength of the research institute is the general outlook and orientation of faculty members. There is very active, lively research climate, with high ambitions and much interaction and exchange.

Both in quantity and in quality, publications are at high level. The Jorgenson-committee recently evaluated the Tinbergen Institute very positively as research institute and graduate school. Faculty members perform well in searching external funding from national (NWO, KNAW) and international (EU) sources.

Still, there are weaknesses. Success in obtaining external funding is not equally distributed among Research Programmes. Publications are in some cases, unevenly distributed within Programmes, and there is scope for raising the bottom of this distribution.

The recent development of a strong Mphil programme by the Tinbergen Institute provides an excellent opportunity to raise the proportion of Ph.D. students that finish their thesis within the standard time. It is important to utilize this opportunity and to support the new programme fully both financially and in terms of teaching capacity.

But certainly there are threats and hurdles. RESAM Research Programmes have gained international reputation, but without significant funding to provide excellent research opportunities further growth will not be possible, and deterioration may set in. The increased openness of the international research community and increased mobility of faculty generates a more competitive labour market, and attracting and keeping highly qualified faculty is not easy. This was true in 2004 and even more so in 2005.

Given the ambitions, opportunities and threats, RESAM sees no reason for changes in its objectives an research strategy. RESAM’s general strategy seems to work quite well, with specific minimum research output standards at the individual level, general measures to enhance an active, ambitious research climate, discussion of goals and performances with individual Programme Directors to discuss common concerns and to share the responsibility for good collective performance.

4.2. ASSESSMENT OF THE COUNCIL OF PROGRAMME LEADERS
Overall, the Council has reason to be quite satisfied with the results obtained over the last couple of years including 2004. The number of A and B-level publications was slightly lower than in 2003 but overall output was satisfactorily both in quality and quantity. Again a large number of FEE-researchers made it into the 2004 edition of the Tilburg Top 40 of Dutch economists. Most of the research groups have also proven to be viable and are highly active in research, as is shown by the fact that many seminar series have been organised, which provide valuable opportunities for exchange and interaction. If we continue this trend, we will undoubtedly remain one of the major European universities as far as research is concerned. The clear objectives set and the consistent faculty-policy concerning quality of research have certainly contributed much to these results. Furthermore, the atmosphere is good and a general positive and enthusiastic outlook can be detected.

There are, however, also points of concern. First and foremost is personnel policy. As has been shown above, the Faculty is on the right track in creating a top-level research institute in economics and econometrics but efforts will need to be continued to remain on this track. Last year the Council noted that the departure of one or two top-level researchers would prove to be a serious danger to the FEE’s ambition. Since then three prominent researchers have left the FEE (Claessens, Goeree and Wakker). Although it seems clear that their departure couldn’t be prevented by any FEE policy it will prove to
be a serious blow for the FEE. The faculty needs to attract new top-level researchers and further improve its research environment so that good researchers feel welcome, are able to realize their full potential and FEE remains visible as one of the leading research institutes in Europe.

Secondly is the current financial constraint under which the faculty has to operate. There are too few funds for basic necessities such as for conference visits, inviting guests, conducting experiments or buying data.

Finally the Council is divided about the developments at the Tinbergen Institute. Not all fields in which research is done by RESAM programmes are represented in the TI, notably statistics and actuarial science. This also has implications for the TI as a graduate school. The TI programme is not suited for all RESAM-students and might prove to be holding back the progress of Ph.D.’s with projects in specific fields. On the other hand, creating a small pool of excellent mphil-students from which Ph.D.’s can be selected is seen as a positive development. The RESAM-director, also a member of the TI Admission Board, will have to see to it that Ph.D. students are evenly distributed among research programmes.

**Box 4: After six years professor Joop Hartog resigns as director RESAM**

As of January 1 2005, Joop Hartog has resigned his post as director of the research institute RESAM. The institute was established in 1998 after the enactment of the new law on modernizing university governance, MUB (Modernisering Universitair Bestuur). Joop Hartog became the institute’s first director and was responsible for building it from the ground up. He succeeded in creating a small-staffed and flexible unit capable of decisive action.

Under his leadership the number of research programmes was reduced and top-level research has been stimulated. Without doubt, these efforts contributed to the good VSNU assessment in 2002. Three of the (then) thirteen research programmes were given an ‘excellent’-rating for scientific quality. The programmes that the assessment-committee deemed to perform unsatisfactory have in the mean time been terminated. An important instrument he created to improve the quality of research is the transparent RESAM-system of weighing research output and allocating research time.

Joop Hartog, furthermore, gave researchers a strong impetus to submit research proposals in order to attract external funding for research. FEE has been quite successful in securing external funding over the last years and two major (VENI) subsidies have recently been awarded to two young FEE economists. In co-operation with the UvA liaison office, RESAM did research on what research programmes are best suited to be apply for which (EU) subsidies and administrative assistance has been expanded. Furthermore, an easy-to-use website was created to give researchers information on interesting possibilities for research-funding.

We are very happy his qualities will not be lost to the FEE: in the coming years Joop Hartog will again be able to fully dedicate himself to research and teaching. FEE wishes to thank him for six successful years as RESAM director and his successor is indebted to him for leaving behind a smoothly running institute.
The Research Programmes

RESam
UvA-Econometrics
Programme director: Prof. dr J.F. Kiviet
Department: Quantitative Economics (KE)
METIS-code: uva/fee/res/eem/prog
JEL-classification: C
Web-address: www.fee.uva.nl/ke/UvA-Econometrics

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| Total 1st flow of funds | 4.88 | 5.94 | 5.72 |
| Total 2nd flow of funds  | 1.75 | 1.80 | 0.90 |
| Total 3rd flow of funds  | 0.00 | 0.00 | 0.00 |
| Total 1st f.o.f. excl. Ph.D.’s | 3.73 | 4.14 | 3.35 |
| Total 1st-3rd flow of funds | 6.63 | 7.74 | 6.62 |
| Ph.D. students | 1.15 | 1.80 | 2.37 |

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

9 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
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 a dynamic adjustment process. 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 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 and longitudinal 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 six partly intertwined sub-themes can be distinguished. The first theme is primarily concerned with accurate inference in finite samples. Within this theme, analytical finite sample approximations, Bayesian inference, simulation-based inference, inference based on GMM, 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. Main contributors are Kiviet, van Garderen, Kleibergen, van Giersbergen and Bun.

The second theme centers around the 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. The main participants are Boswijk, Kleibergen, van Giersbergen and Omtzigt.
The third theme deals with model selection and model comparison. Within this theme, both linear and non-linear models are considered, nested or non-nested, with an emphasis on time series. Relevant topics are information criteria and entropy measures, the Fisher information matrix, model inference, and space-time modeling of socio-economic data. Contributors are de Gooijer, Bethlehem, Kleibergen, Klein and Cheng.

In the fourth theme the focus is on the econometrics of financial markets. Topics are ARCH and stochastic volatility models, the econometrics of the CAPM and factor models, econometric analysis of credit risk, and the analysis of option data and implied volatilities. Participants are here Boswijk, Kleibergen and van der Ploeg.

The fifth theme is concerned with micro-econometrics, focusing on limited dependent and discrete data, with applications in labor market econometrics. Contributors are van Ophem and Cramer. Finally there are miscellanea, including work on poverty measures by van Garderen and on historical aspects of statistics and econometrics by Kiviet.

Resources and funding
Until a few years back the budget for compensating travel, subsistence and conference fees of the research group was very tight. Strict rationing of the budget over the active researchers induced most of them to find alternative funding (for instance from budgets created in the past on the basis of successful PhD defences, from compensations paid by the business school for special courses taught, or originating from other commissioners of special projects, etc.). As a result last years budget obtained via RESAM was hardly used. Since it is expected that most of the alternative funds will be exhausted soon, UvA-Econometrics hopes that the level of the present annual budget can be maintained. Over the last few years researchers have been confronted with sharply increasing price levels at conferences and for travel and accommodation.

Programme evaluation
The current achievements within this program are still much in line with the latest VSNU assessment covering 1996 through 2000, which awarded an excellent mark for quality, a good mark regarding viability, and satisfactory marks with respect to relevance and productivity, where the latter was mainly due to the relatively small number of Ph.D. students.

During 2004 a considerable number of papers has been published in leading journals, and also the number of papers not yet published though already accepted by prominent periodicals is quite substantial. These achievements have been obtained in all sub-themes of the UvA-Econometrics research program and perpetuate its reputation regarding quality and productivity of research output.

The program has been able to extend its number of Ph.D. students, but the number is still too low. Attempts are being made to acquire NWO funding for extra positions, and to stimulate talented external candidates from underdeveloped countries to apply for Ph.D. fellowships at NUFFIC, but at this stage no successes can be mentioned yet. Such successes seem indispensable to improve the program’s reputation regarding overall productivity and viability.

Substantial labour-investments have been undertaken over the last year, and will be undertaken during the next year, to obtain EU-funding (jointly with EU partners) for projects that aim at human capacity building regarding research skills in (applied) econometrics at particular Asian universities. Hopefully, this will enable to extend the UvA-Econometrics activities in this new and challenging direction from next year on. Such activities could also have a noticeable effect on the UvA-Econometrics research agenda (in an applied direction) and thus enhance its relevance and viability.
The current size of the group of researchers in econometrics offers just the minimal critical mass required to maintain a very stimulating research environment. Almost weekly a Friday afternoon (external) seminar or (internal) workshop is organized, usually at the Tinbergen Institute. All members, especially the Ph.D. students (which are presently all from abroad), are strongly encouraged to participate actively in these weekly joint exchanges of ideas and achievements. 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 can be downloaded.

It is worrying, that some of the allocated research input for 2004 has actually not been consumed (made productive), because claims from faculty management obstructed the planned research activities by particular individuals. The Faculty's Dean will be urged to compensate these losses.

Most members of UvA-Econometrics continue to operate in intensive formal and informal national and international networks. 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 2004 (number and quality of publications, presentations at and invitations for international meetings, editorial responsibilities, hosting of visiting scholars, exposure at peer institutions) have been very substantial, but certainly leave ample room for further qualitative and quantitative improvements.

### Key publications


### Forthcoming publications


Klein, A. & Spreij, P. (2005). On the solution of Stein’s equation and Fisher’s information matrix of an ARMAX process. Accepted for publication in *Linear Algebra and its Applications*.

Mavroeidis, S. (2005). Identification issues in Forward-Looking models estimated by GMM with an application to the Phillips Curve. Accepted for publication in *Journal of Money Credit and Banking*.


**Publications in numbers**

*UvA-Econometrics 2004*

| 1) Academic publications | a) in refereed journals | A | 3 |
| | B | 7 | 12 |
| | C | 2 |
| b) in other journals | 2 |
| c) book chapters | A | - |
| | B | - |
| | C | - |
| | Other | - |
| d) in proceedings | 1 |
| Total | 15 |
| 2) Monographs | A | - |
| | B | - |
| | C | - |
| 3) Ph.D. theses | - |
| 4) Professional publications | 1 |
| 5) Popular publications | - |
| 6) Working papers | 18 |
| Total | 34 |

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

*UvA-Econometrics 2004*


**Academic publications (in proceedings)**


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


**Academic publications (working- and discussion papers)**


**Professional publications**


**Contributions to academic conferences, workshops and seminars**


Bun, M.J.G. (2004, 5 June). Bias-corrected estimation in dynamic panel data models. 11th International Conference on Panel Data, College Station, Texas, USA.

Bun, M.J.G. (2004, 8 June). Bias-corrected estimation in dynamic panel data models. Seminar at Southern Methodist University, Dallas, Texas, USA.


Garderen, K.J. van (2004, 19 July). Predicting Growth and Levels in Loglinear Unit Root Models. La Trobe University, Melbourne, Australia.

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Kiviet, J.F. (2004, 5 June). Judging contending estimators by Monte Carlo: tournaments in dynamic panel data models. 11th International Conference on Panel Data (June 4-6), Texas A&M University, USA.
Kleibergen, F. (2004, 18 March). Expansions of GMM statistics that indicate their properties under weak and or many instruments and the bootstrap. Econometrics Research Triangle Seminar, Durham, North Carolina, USA.
Kleibergen, F. (2004, 19 March). Expansions of GMM statistics that indicate their properties under weak and or many instruments and the bootstrap. Econometrics Seminar, University of Pittsburgh, USA.
Kleibergen, F. (2004, 20 June). Expansions of GMM statistics that indicate their properties under weak and or many instruments and the bootstrap. American Summer Meeting of the Econometric Society, Brown University, Providence, USA.
Kleibergen, F. (2004, 8 October). Expansions of GMM statistics that indicate their properties under weak and or many instruments and the bootstrap. Econometrics Workshops, Brown University, Providence, USA.
Kleibergen, F. (2004, 23 November). Expansions of GMM statistics that indicate their properties under weak and or many instruments and the bootstrap. Econometrics Seminar, Ohio State University, USA.


Organisational contributions to conferences, workshops and seminars


Garderen, K.J. van (2004). Member of the programme committee of the 2004 European Meeting of the Econometric Society (Econometrics) held in Madrid.


Participation in academic networks & fellowships


Boswijk, H.P. (2004). Member of the ESF-EMM network (Econometric Methods for the Modelling of nonstationary data, policy analysis and forecasting); financed by the European Science Foundation.


**Editor or member of editorial board**
Ploeg, A.P.C. van der (2004). Member of the Editorial Board of the *Tinbergen Magazine*.

**Referee activities**

**Membership of academic committees (including Ph.D. committees outside the FEE)**
Boswijk, H.P. (2004). Member of the Educational Board of the Tinbergen Institute.
Boswijk, H.P. (2004). Member of the Board of the Netherlands Network of Economics.
Cramer, J.S. (2004, 9 September). Member of the PhD committee for Jeanine Kippers. Promotor: Prof Dr Ph.J.B.F. Franses, Erasmus University, Rotterdam.
Klein, A.A.B. (2004, 28 June). Member of the PhD committee for Abdelhamid Ouakasse, Université Libre de Bruxelles, Institut de Statistique et de Recherche Operationnelle.

**Research contributions in the media**
Grants, prizes and honours
Garderen, K.J. van (2004). Travel and Academic Visit Grant from KNAW and the Academy of the Social Sciences in Australia.
Kiviet, J.F. (2004). NWO bezoekersbeurs (visiting grant, duration of 3 months) for Prof. Jean-Marie Dufour (Université de Montréal, Canada) visiting University of Amsterdam.

Various activities
Bethlehem, J. (2004, June) Presenter of a Course on Survey Methodology for phd-students of Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS), Voorburg.
Operations Research and Management

Programme director: Prof. dr N.M. van Dijk
Department: Quantitative Economics (KE)
METIS-code: uva/fee/res/or/prog
JEL-classification: C4

Members of the research group and research in FTEs\(^{10}\)

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| Total 1st flow of funds | 1.65 | 2.64 | 3.38 |
| Total 2nd flow of funds | 0.00 | 0.00 | 0.00 |
| Total 3rd flow of funds | 0.00 | 0.05 | 0.15 |
| Total 1st f.o.f. excl. Ph.D.’s | 1.50 | 2.01 | 2.45 |
| Total 1st-3rd flow of funds | 1.65 | 2.69 | 3.53 |
| Ph.D. students        | 0.15 | 0.68 | 1.08 |

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;

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\(^{10}\) The numbers in the columns represent the research-time earned with publications under the RESAM-system.
• 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

Resources and funding
The research budget for travelling was rather and in fact too limited. As a consequence of which:
• The traveling was kept to a minimum and a selection among the research members had to be made
• Project (3de geldstroom) funding has also been used. This however is to be regarded as incidental and should not be structural.

In addition one of the Ph.D. students is also partially supported by project funding from industry.

Programme Evaluation

By the research visitation in 2002 the program was evaluated rather poorly, most notably in production and viability. This evaluation was grounded on the total lack of Ph.D.’s and the vulnerable character (such as due to a temporary half-time reduction of the program leader).

Curiously though, the production (and associated quality) appeared to be the highest of all FEE-research programmes (both in absolute number of refereed papers and in number of papers in A- and B-journals). This might be seen as noteworthy, given the fact that its field of interest is not within the core directions of economical research. This is also reflected by the presence of the programme leader in the 2003 and 2004 top-40 list of Dutch economists.

Nevertheless, based on the evaluation the program set itself three major objectives:
• Stimulation and development of Ph.D.’s
• More research interaction among the programme members
• A more balanced production over the programme members

The first positive steps in each of these directions as set in 2003 were continued and strengthened in 2004 such as by:
• One Ph.D. completion in 2004 and one planned in 2005 (of old Ph.D. students)
• Two Ph.D. positions (one of which co-financed by the Dutch Railways)
• Two applications for external co-funding of a Ph.D. position
• A far more overall orientation for and participation in research activities
• Strong research interactions among the research members

see
• Duin and Van der Sluis
• Haijema, Duin and Van Dijk
• Haijema, Van der Wal and Van Dijk (2x)
• Van Dijk and Van der Sluis (3x)
• Volgenant and Duin (4x)

in addition also to a (substantially) strong(er) research orientation and productivity by various individual research members (possibly with external co-authors)

(see:
• Duin
• Volgenant (8x)
• Van der Wal (2x)
• Van Dijk (2x)

The three categories of research have all been addressed by these research activities, as specified below.

Fundamental theoretical research
1.1 See: Volgenant, Duin (3x)
Volgenant et al. (2x)
Volgenant and Duin (3x)
1.2 See: Van Dijk and Miyazawa
1.3 See: Van Dijk and Sladky (2x)

**Fundamental Applied Research**

See: Van der Wal et al. (2x)
Volgenant et al. (3x)
Van Dijk and Van der Sluis (2x)

**Practical Research**

See: Van Dijk and Van der Sluis
Haijema, Duin and Van Dijk
Haijema, Van der Wal and Van Dijk (2x)
See: Popular publications: Van Dijk (2x)
See: Organisation: Van Dijk and Van der Sluis

**Future objectives**

- The threefold objective mentioned above with the different categories of research as described will be kept and developed further.

- Particularly, next to the continuation of individual and interactive research, the development (and possible external funding) for Ph.D. research is paid attention to.

- In addition, also participation and profiling of research at conferences is strived for.

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**Key Publications**


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**Forthcoming**


Perishable Inventory Problem. *Operations Research Proceedings 2004: Selected Papers of
the International Conference on Operations Research (OR 2004)*. Springer.
Research Proceedings 2004: Selected Papers of the International Conference on Operations
Research (OR 2004)*. Springer.
Distance. *European Journal of Operational Research*.
Journal of Operational Research*.
Interarrival Times. *Stochastic Models*.
queue with admission and termination control. *Queueing Systems*.

**Publications in numbers**

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**Dissertations**
Universiteit Amsterdam. [Promotores prof. dr. G.M. Koole & prof. dr. N.M. van Dijk] [cat. C].

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


**Book reviews**


**Academic publications (working- and discussion papers)**


**Professional publications**


**Popular publications**


Contributions to academic conferences, workshops and seminars
Dijk, N.M. van (2004, 4 December). To Pool or Not to Pool in Call Centers, 1st Conference of the POMS College of Service Operations, New York. Invited lecture.

Other lectures on research
Dijk, N.M. van (2004, 23 April). Should we Pool or Not: That is the question, presentation for Natuurkundig Genootschap, Middelburg. Lecture.

Organisational contributions to conferences, workshops and seminars

Participation in academic networks & fellowships
Dijk, N.M. van (2004). Member LNMB (Landelijk Netwerk Mathematische Besliskunde)
Dijk, N.M. van (2004). Fellow Tinbergen Instituut.
Wal, J. van der (2004). Member LNMB (Landelijk Netwerk Mathematische Besliskunde)

Editor or member of editorial board

Referee activities


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

**Equilibrium, Expectations & Dynamics**

*Subprogrammes:* CeNDEF Pionier program (NWO-MaG)
NWO-Vernieuw-ingsimpuls Information Flows in Financial Markets.

*Programme director:* Prof.dr. C.H. Hommes

*Department:* Quantitative Economics

*METIS-code:* uva/fee/res/e&d/prog

*JEL-classification:* C, D, E6

*Web-address:* www.fee.uva.nl/cendef

*VSNU-scores 1995-2000:* Quality: 3, Productivity: 3, Relevance: 2, Viability: 4

**Members of the research group and research in FTEs**

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Total 3rd flow of funds: 0.00 0.00 0.00
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Total 1st-3rd flow of funds: 7.47 7.91 6.50
Ph.D. students: 2.90 3.00 2.60

**Programme design**

The objective of the program is the development of mathematical economic theory, which is focussed on the understanding of economic processes. The program aims at developing models of economic behaviour, in microeconomics, macroeconomics and finance. Emphasis is given to behavioural models of dynamic market phenomena. The research group has a multi-disciplinary approach. The

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11 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
models are studied both from a theoretical and a computational perspective, and the validity of the models is tested in laboratory experiments as well as real data. The NWO-MaG Pionier project Center for Nonlinear Dynamics in Economics and Finance (CeNDEF) and the NWO-Vernieuwingsimpuls Information Flows in Financial Markets are part of the research program. The program can be subdivided into four, closely related and interacting 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. Existence of equilibria as well as conditions for stability or instability of dynamic adjustment processes are studied.

**Game theory:** This part of the program 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 experiments and in real markets.

**Nonlinear economic dynamics:** This part of the program 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 mimic 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.

**Resources and funding**
The research program has two sources of external funding, the NWO-MaG Pionier grant, 1998-2004 for CeNDEF of Hommes and the NWO Vernieuwingsimpuls 2001-2005 of Diks. CeNDEF has been embedded in the Department of Quantitative Economics, in particular the CeNDEF postdocs (Diks, Tuinstra and Wagener) obtained a tenured position (with a 50-50% teaching/research load as usual) in October 2003. Manzan is postdoc within the NWO Vernieuwingsimpuls until June 2005. Recently a new EU-grant for a Specific Targeted Research or Innovation Project (STREP) on Financial Markets and Complexity, 2005-2008, within the Sixth Framework Programme has been obtained. In this EU-project, CeNDEF will cooperate with research groups in Warwick (coordinator), Kiel, Marseille, Cagliari and Trieste. A new postdoc will be appointed for three years within this project.

**Programme evaluation**
This program grew out of a mathematical economics program *Equilibrium and Dynamics*, led by Weddepohl, which was quite small until the mid nineties. The group was extended considerably at the
end of 1998, due to a NWO-MaG Pionier grant awarded to Hommes, to set up the Center for Nonlinear Dynamics in Economics and Finance (CeNDEF). The program changed from a small specialized mathematical economics program into a multi-disciplinary research program still with an emphasis on economic theory, but also running laboratory experiments (in cooperation with Prof. Joep Sonnemans at CREED) to test behavioural theories and doing empirical work, in particular nonlinear time series analysis, to test behavioural models empirically. Weddepohl retired in 2002 but is still at the department one day per week. More recently Furth and Koster joined the group in 2002 and game theory has become one of the research themes of the program. At the end of 2003, the CeNDEF postdocs Diks, Tuinstra and Wagener obtained tenured positions, so that the continuation of the research program will be ensured.

The output of 8 articles in international journals in 2004 is somewhat below average, but with more than 10 forthcoming publications in 2005 (including several A journals) the output is expected to be above average next year. The research program has gained international recognition, as e.g. shown by good citation statistics (e.g. in 2004 more than 50 citations of published work by group members, and more than 250 cumulative citations) and many (invited) lectures given at international seminars, conferences and workshops by various members of the research group. CeNDEF organized the 10th International SCE 2004 conference on Computing in Economics and Finance, July 8-10, in Amsterdam, with more than 300 participants from all over the world. Hommes was ranked at the 22nd position in the ESB Economen Top 40, and at the no. 1 position of the publication tipparade based on publications in 2002. Various contributions and interviews in the media also witness the social relevance of the research program.

**Key publications**


**Forthcoming**


### Publications in numbers

**Equilibrium, Expectations & Dynamics**

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**Equilibrium, Expectations & Dynamics**

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

**B**


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*Equilibrium, Expectations & Dynamics - Hommes
Quantitative Economics*


**Academic publications (in/of books) - refereed**


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


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


**Academic publications (working- and discussion papers)**


Sadiraj, V., Tuinstra, J. & Winden, F. van (2004). *Computational electoral competition with social clustering and endogenous interest groups as information brokers*, CeNDEF Working Paper 04-08, Universiteit van Amsterdam.


**Book reviews**


**Popular publications**


**Contributions to academic conferences, workshops and seminars**


Hoog, S. van der (2004, 9-10 September). First Bonzenfreies Colloquium on Market Dynamics and Quantitative Economics, East Piedemont University, Alessandria, Italy.


Panchenko, V. (2004, 10 September). Testing copulas with positive definite bilinear forms, First Bonzenfreies Colloquium on Market Dynamics and Quantitative Economics, Alessandria, Italy.

Organisational contributions to conferences, workshops and seminars

Participation in academic networks & fellowships
Hommes, C.H. (1996-). Fellow NAKE.

**Editor or member of editorial board**
Tuinstra, J. (2003-). Special Issue Editor *Journal of Economic Dynamics and Control*.
Tuinstra, J. (2004-). Associate Editor *Journal of Economic Dynamics and Control*.

**Referee activities**

**Membership of academic committees (including Ph.D. committees outside the FEE)**
Diks C. (2004, 29 June). Member PhD committee of J. Vrugt (Institute for Biodiversity and Ecosystems, Universiteit van Amsterdam).

Research contributions in the media

Grants, prizes and honours
Hoog, S. van der (2004). Student Prize for Best Student Paper at 10th SCE Conference, July 8-11, Amsterdam.
Actuarial Science
Programme director: Prof.dr R. Kaas
Department: Quantitative Economics
METIS code: uva/fee/res/act/prog
JEL-classification: C, G2

Members of the research group and research in FTEs\textsuperscript{12}

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Total 1st flow of funds 1.61 2.22 1.89
Total 2nd flow of funds 0.65 1.00 0.97
Total 3rd flow of funds 0.27 0.37 0.46
Total 1st f.o.f. excl. Ph.D.'s 0.79 1.26 0.88
Total 1st-3rd flow of funds 2.53 3.59 3.32
Ph.D. students 0.82 0.96 1.01

Programme design
The programme concerns both fundamental and applied research in the field of financial institutions, mainly directed at insurance, social insurance included, but also at banks and other financial institutions. The research mainly concerns the mathematical modelling, estimation, appraisal and control of financial risks of financial institutions (for insurers in the field of life, non-life and pension insurance) under complete and incomplete information. For long term insurance contracts, especially pensions, saving by insurance is significant, which leads to accompanying investment problems. This for instance concerns the "tuning" of the insurance and investment portfolios. Another practical aspect is the influence of the "risk of longevity" on the policies of life insurance, social insurance and care insurance. This remains a permanent subject of investigation. Present-day problems of insurance companies concern decreasing profit margins, increasing competition and selective behaviour of the

\textsuperscript{12} The numbers in the columns represent the research-time earned with publications under the RESAM-system.
insured and of insurance companies. Up to now limited attention has been given to problems that emerge from the privatisation of social insurance. The research partly deals with problems related to the supervision of insurance companies.

An important subject of investigation is the further development of actuarial risk theory, in particular the development of new mathematical and economic models in the fields of mathematical reserves, equalisation reserves and solvency margins 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 the consequences for the determination of insurance premiums. In the premium calculation, the determination of factors that affect the risk (risk classification) is a significant aspect. 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. Another theoretical research subject concerns the unification of several distinct actuarial theories in the field of non-life, life and pension insurance, partly in connection with stochastic financial mathematics. A new research project deals with the valuation of interest rate guarantees in insurance and financial products. Another topic of interest will be the Generalized Linear Models and Generalized Linear Mixed Models. GLMs can be used for a variety of actuarial statistical problems like survival modeling, graduation, multiple-state models, loss distributions, risk classification, premium rating and claims reserving in non-life-insurance. Credibility models can in fact be viewed as GLMMs, having both random (subject-specific) and fixed effects in the linear predictor.

**Resources and funding**
The programme received a very modest amount of funding (€ 2900,-) from the research institute RESAM in 2004. The money was spent on costs related to conference visits by programme members.

**Programme Evaluation**
The main focus of the research of the Actuarial Science group presently is on the subject of ordering of risks and dependence of risks, as can be seen from the lists of publications. In the future, research in this field will continue, but there will be also be a shift to the field of financial modelling: In cooperation with the professors of financial economics and financial econometrics of our faculty a Ph.D. research project called “Valuation of Interest Guarantees in Insurance Projects” has started in 2002, about the integration of actuarial and financial modelling. A second Ph.D. project has started in May 2002, called “Risk Measures and Dependencies between Risks”, hence also a project that combines insurance and financial market elements. Also in May 2002 a postdoc, financed by NWO, has started working on a project called “The Theory of Dependencies of risks applied to asset-liability models”. Though this postdoc took another position during 2004, we plan to continue research in this field by appointing one or more new postdocs.

Our Belgian colleagues at the KU Leuven have started a large GOA Project called Actuarial, financial and statistical aspects of dependencies in insurance and financial portfolios. In this framework a cooperation has been established between the GOA group and the Actuarial Section of the Universiteit van Amsterdam (Prof. Dr. R. Kaas, Prof. Dr. H. Wolthuis, Dr. Q. Tang, Drs. R. Laeven). Within Belgium, a close co-operation already exists between the GOA-group and the University of Antwerp (A. De Schepper, M. Van Wouwe) and the University of Ghent (M. Vanmaele) as well as with the UCL (M. Denuit) all resulting in joint papers within the topic of the GOA. Partly as a reaction to comments of the VSNU assessment of research quality in 2002, we have adapted our submission behaviour and included submissions to journals in related fields without of course neglecting our classical publications outlets (the typical actuarial journals). We have the impression that with this international co-operation we succeed in playing a more pronounced role in the international world, where we succeeded in becoming one of the few university groups involved in the project concerning R(isk) B(ased) C(apital) evaluations, which will to some extent form the basis of the new IAS
reporting. We refer to the "Report of Solvency working party" (www.iasb.org.uk and www.actuaries.org). As a consequence we are also involved in the IAA Risk-Based Capital Solvency Structure working party, which is preparing a final report. The basic concepts in the actuarial reserving and risk taking strategies rely heavily on the notion of economic capital. Using the concepts of risk order and comonotonicity we succeeded in providing the instruments for describing the role of economic capital and capital allocation taking into account diversification effects. These theoretical results in the meantime have had some influence on the RBC-approach from the IAA and the S&P rating agency. We have the impression that some of our theoretical results can serve as a basis (and are in fact a breakthrough) for the capital adequacy of financial conglomerates.

In our recent actuarial book Modern Actuarial Risk Theory (2001), we integrate classical actuarial techniques with financial aspects based on dependencies. It is important to note that this book, published by Kluwer Academic Publishers, has had its seventh printing this year. This is rather exceptional for books within the rather small actuarial field. The Chinese edition of this book has appeared early in 2005.


The actuarial group supports the actuarial profession's rethinking of their role in the world. Research work has been initiated into the history of and the philosophy behind the actuarial profession.

As a consequence of our activities, the University of Amsterdam plays an important role in the organisation of actuarial and financial meetings world-wide. Our researchers are members of organising committees and of scientific committees of various forthcoming important actuarial-financial colloquia and conferences. Several international series of conferences are organised with the co-operation of the members of our team: the annual IME conferences (this year Rome), the biannual ICCAM conferences at the KU Leuven, the conferences at the University of the Aegean (Samos), as well as the Brazilian Conferences on Statistical Modelling in Insurance and Finance (Ubatuba).

Some new projects will be submitted to NWO or related institutions in co-operation with the Actuarial and the Accountancy-Finance-Insurance groups of the Department of Applied Economic Science of the K.U. Leuven and the group Financial Economics of the University of Amsterdam.

The annual research output of the actuarial research group has more than doubled in 2002 with respect to 2001. In 2003, we have managed to increase the output even further. This trend has continued in 2004, even though the actuarial research group at the University of Amsterdam is very small.

Key publications
Forthcoming publications


### Publications in numbers

#### Actuarial Science

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

**A**

**B**


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


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


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

**Academic publications (in proceedings) – non-refereed**


**Academic publications (working- and discussion papers)**


**Book reviews**


**Professional publications**


**Contributions to academic conferences, workshops and seminars**


Dhaene, J. (2004, 5 February). Risk measures, University of New South Wales, Actuarial Studies Unit, Sydney, Australia.


Goovaerts, M.J. (2004, 5 March). The comonotonic image of additivity. 3L seminar, Lausanne, Switzerland.


Organisational contributions to conferences, workshops and seminars
**Participation in academic networks & fellowships**


**Editor or member of editorial board**


Heerwaarden, A.E. van (2004). Member editorial board *De Actuaris*.


**Referee activities**


**Grants, prizes and honors**


**Various activities**

Other Research
Department: Quantitative Economics
Ozis code: uva/fee/res/orq/prog

Researchers and research time in FTE

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The numbers in the columns represent the research-time earned with publications under the RESAM-system.

Contributions to academic conferences, workshops and seminars
The Transformation of Europe: Monetary, Fiscal & Institutional Aspects

Subprogrammes: 
A: International Economics  
B: Macroeconomics  
C: Monetary Economics  
D: Transition Economics

Programme director: Prof. dr. R.M.W.J. Beetsma
Department: Algemene economie (economics)
METIS-code: uva/fee/res/toe/prog
JEL-classification: E, F, H, P
Web-address: www.fee.uva.nl/toe


Members of the research group and research in FTEs

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**Subprogramme B: Macroeconomics (Beetsma)**

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**Subprogramme C: Monetary Economics (Hoogduin)**

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Programme design

The program intends to use theoretical and empirical methods to analyse important current and future economic issues for Europe that are in the areas of international economics, macroeconomics, monetary economics and transition economics. Dissemination of the results takes place mainly via international, refereed scientific journals, but also via more policy-oriented outlets. The research program can be positioned as “society-driven”.

Subprogram A: International Economics

This program explores the behaviour of nominal and real exchange rates. The approach is both analytical and empirical, while making use of advanced econometric time series analysis. More specifically, we analyse speculative attacks, currency crises, and, related to this, exchange rate policy. This is relevant for some countries in the European Union and for all the countries in Central and Eastern Europe that are not yet part of EMU. Further, we investigate the influence of real exchange rate volatility on international trade, which is often mentioned as a key reason for European monetary integration, but which empirically is largely an unresolved issue. Finally, we explore the effects of monetary unification on international trade within the union.

Subprogram B: Macroeconomics

Major topics in this subprogram are fiscal policy, dynamic stochastic general equilibrium modelling and population ageing. These lines of research are often intertwined. As far as fiscal policy is concerned, we investigate how the presence of fiscal constraints affects the incentives for structural reform and, via this channel, the functioning of the European Monetary Union (EMU). We also analyse fiscal policy in the context of models of the New Open Economy Macroeconomics literature, which focuses on sticky prices and imperfect competition. Finally, we analyse empirically the international spill-over effects of fiscal policy shocks in the Euro-area. The stochastic dynamic equilibrium modeling focuses on heterogeneous agents and uninsurable idiosyncratic risks. Population ageing is studied from various perspectives. For example, in the context of our participation in the Netspar project on population ageing, we investigate the role of pension systems in determining how macro-economic stabilisation policies affect different generations.

Subprogram D: Transition Economics (Ellman)

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Total 1st-3rd flow of funds 7.78  8.49  7.98
Ph.D. students 2.41  2.85  2.97

14 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
Subprogram C: Monetary Economics
Research within this subprogram focuses on two broad topics. The first is uncertainty, information, communication and monetary policy. Specific issues include the credibility of central bank announcements, the effects of central bank communication on output stabilisation, central bank transparency, inflation targeting under uncertainty and the role of the media in shaping consumer confidence. The other broad topic concerns nominal and financial rigidities and the transmission process of monetary policy. Specifically, price setting behaviour of Dutch firms is studied and the sticky information Phillips curve is estimated for the Netherlands. Further, we study the Dutch and European housing market dynamics, as well as the role of monetary policy for such dynamics.

Subprogram D: Transition Economics
Central to this theme is the transition of the countries of the former communist block. This allows us to draw some general conclusions for the theory of economic systems, which is of great practical importance for the future of the European Union, as it has admitted a number of these countries recently and may admit more of these countries in the future. The project pays particular attention to the institutional aspects of the transition, the role of agriculture, the role of the informal sector (which is much more important than was initially expected) and the role of ethnic issues. The analysis is both theoretical and empirical.

Programme evaluation
The main objectives of the program are to enhance our understanding of current European policy issues in the subject areas of this program (positive analysis) and, where possible, to come up with welfare-enhancing policy recommendations (normative analysis). The main activity has been research aimed at publications in international, refereed scientific journals. One of the program members (Beetsma) was listed in the top-40 of Dutch economists. Many of the program members are relatively young. Output of these members is increasing and we expect that output of the program as a whole will gradually rise in the coming years. Our aims are to publish occasionally in the top five general journals, to widen the number of members publishing in high-ranked (but not top-five) journals, and to intensify collaboration with researchers from leading foreign institutions. Some organisational changes have taken place. First, the original subprogram on “Monetary, Fiscal and Exchange Rate Policy” has been split into a Macroeconomics and an International Economics subprogram. Second, a new Monetary Economics subprogram has been set up. Substantial input in this program comes from researchers with double appointments at the Dutch Central Bank and the University of Amsterdam. We consider the link with the Dutch Central Bank as highly valuable and we expect to further intensify this fruitful collaboration. The research program also benefits from its collaboration with the Dutch Centraal Planbureau.

The main results in terms of economic substance over the past year are described in the sequel.

Subprogramme A:
Catalán Aravena identified three failings of the market-oriented reforms in Latin America. First, the reforms increased countries’ exposure to risk without increasing the capacity to cope with it. Second, the macroeconomic reforms were unbalanced and, third, the reforms pushed privatization but put little weight on improving the public sector. Catalán Aravena argued in favour of an economic policy with a better balance between market and government. Such a policy would shift the focus away from an exaggerated emphasis on inflation and towards job creation, away from privatizing existing enterprises and towards creating new ones and away from confidence in trickle down economics and towards poverty reduction.

Daniëls worked on the consequences of both rationality and irrationality for the formation of exchange rate expectations, both on the sides of the policy makers and of market participants. Leefmans worked on gaining insight into the relation between more economic openness and growth performance through a firm-level analysis of efficiency changes and investment behavior for Tanzania.
In joint work with Levy Yeyati and Schmuckler, Van Horen introduced and evaluated the behaviour of ADR premiums as a new measure of international financial integration. They looked at the ADR premia issued by corporations from nine emerging economies with long-standing liquid ADR issues and examined the effect of stock liquidity, periods of financial crisis and periods of capital controls on financial market integration using auto regression (AR) and threshold auto regression (TAR) models. The main results were the following. First, the ADR premium is very close to zero in tranquil, no-control times. Second, integration is stronger for liquid stocks. Third, integration tends to weaken in crisis periods and, fourth, the presence of controls is directly reflected in the intensity of integration, except when they are not binding.

In another project, Van Horen examined for developing countries whether trade credit is used as a way to lock in customers by firms. She analyzed the impact of producer as well as customer market power on a firm’s decision to provide trade credit. Using a new data set containing a large number of firms in 42 developing countries, she found strong evidence that an important driving force behind the decision to provide trade credit is the urge to be competitive. This holds in particular for those firms that still have to establish a solid reputation in the market and firms located in countries with an underdeveloped banking system.

Klaassen (in a joint project with Bun, Universiteit van Amsterdam) explored the effect of European monetary unification on intra-EMU trade flows. A major economic reason for the introduction of EMU was its supposedly positive effect on trade. Now that EMU has existed for several years, one can check whether this conjecture is valid. The small existing literature estimates trade benefits of EMU of between 5% and 40%. Bun and Klaassen improve these estimates by paying special attention to the characteristics of trade data. One aspect is that trade levels increase over time and they show that taking account of this reduces the estimated trade benefit to a statistically insignificant 3%. Redoing the analysis for data involving other currency unions, for which the literature typically finds trade benefits of about 100%, they obtain a reduction to 25%.

Veestraeten extended his work on probability distributions for reflected Brownian motions. He used the results in his previous paper in Computational Economics for the pricing of options designed to cope with price barriers. He also applied his earlier results to the exchange rate mechanism of the EMS. Further work over the past year led to probabilistic results for various stochastic processes and the importance of boundary specification within stochastic process switching.

Subprogramme B:
Beetsma (in joint work with Debrun, IMF) proposed a theoretical analysis illustrating some key policy trade-offs involved in the implementation of a rules-based fiscal framework reminiscent of the Stability and Growth Pact (SGP). The analysis offered some insights on the current debate about the SGP. Specifically, greater “procedural” flexibility in the implementation of existing rules was found to improve welfare, thus making the Pact more easily acceptable to Euro area Member States. Procedural flexibility designates the enforcer's room to apply well-informed judgment on the basis of underlying policies and to set a consolidation path that does not discourage high-quality policy measures. Yet it turned out that budgetary opaqueness might hinder the qualitative assessment of fiscal policy, possibly destroying the case for flexibility. Also, improved budget monitoring and greater transparency increase the benefits from greater procedural flexibility. Overall, the authors established that a fiscal pact based on a simple deficit rule with conditional procedural flexibility might simultaneously contain excessive deficits, lower unproductive public spending and increase high-quality fiscal outlays.

Ribeiro investigated the impact of the fiscal restrictions in the EMU-area on structural reforms. In this connection, particular attention was given to the role of political factors. Ribeiro also made a start with a formal analysis of the difference between deficit-based sanctions, like those under the Stability and Growth Pact, and debt-based sanctions.
Schabert’s work mainly dealt with the question whether nominal quantities are really negligible for the analysis of monetary and fiscal policy, as suggested by numerous contributions to New-Keynesian macroeconomics. In that literature, the evolution of money and public debt is often viewed as irrelevant for the short-run behavior of core macro-economic variables, which is reflected by the assumption of frictionless markets for goods and assets. This leads to the question if and how nominal quantities matter under more realistic specifications of markets that allow for transactions frictions or other market imperfections.

Part of the Schabert’s research was concerned with the informational content of monetary aggregates when a short-run nominal interest rate serves as the operating target. It was found that a welfare maximizing central bank should consider the evolution of real balances as an indicator for interest rates targets if there exist (even small) transactions frictions. This line of research was extended further to the analysis of the equilibrium relation between money supply and interest rate targets. It was shown that widely applied interest rate target rules (Taylor-rules) cannot simply be implemented by monetary injections, indicating that asset/money market frictions might be relevant for monetary policy analysis.

The other part of Schabert’s research activities focused on the interaction between monetary and fiscal policy and, especially, on the role of public debt. Given that a reasonable analysis of fiscal policy effects is hardly possible under Ricardian equivalence, a framework was developed where public debt is non-neutral and plays a meaningful role for macro-economic stabilization. Within this framework, it was shown, for example, that a monetary policy regime that aims at stabilizing inflation should be accompanied by a balanced-budget policy.

Vermeylen finalised the linearization techniques that he developed to solve stochastic dynamic general equilibrium models with heterogeneous agents and uninsurable idiosyncratic risks. This resulted in three papers, where Vermeylen applied these techniques to three different models, with increasing degrees of complexity. In the first paper, he derived a linearized version of the aggregate consumption function and explained why he found a first-order effect of precautionary saving. In the second paper, he derived the steady state in a general equilibrium model with heterogeneous agents who face idiosyncratic employment shocks. In the third paper, he solved a neoclassical business cycle model with reallocation shocks, and he derived how precautionary saving fluctuates over the business cycle.

A popular view holds that ageing populations increase health expenditure to GDP ratios because health expenditure correlates positively with age and because the concomitant shrinking of the labour force depresses GDP. The resulting increase in transfers from the young to the old then calls for a reform of health care policies. Westerhout critically examined the arguments underlying this view. His work gave credit to factors that counteract the abovementioned effects. Although important, these factors were found to have insufficient weight to invalidate the popular view. Westerhout also worked on a paper on competition in the Dutch health care system. This paper described the move towards a model of managed competition in the Dutch health care system. Although important policy changes have been implemented, a lot of work remains to be done. As regards managed care activities by insurers and mobility of people between different sickness funds, for example, the results of policy changes thus far have been modest. The paper explained the slow progress in terms of the preferences of Dutch policy makers to avoid cost increases and a reduction of the accessibility of medical care. Reforms will not come to a halt however. Indeed, it was argued the ageing of the population will command further reforms of the health care sector.

Subprogramme C:
Demertzis (in joint work with Hughes Hallett from Vanderbilt University) examined the consequences of having a central bank whose preferences are state contingent. This has been identified in the literature as a central bank that is “rationally inattentive” or “constructively ambiguous”. The new feature of this work was that the authors showed how the private sector is likely to react. There are two possibilities: the public can form rational expectations and internalise the uncertainty about the central bank's preferences in full. Alternatively, and if this process of internalisation is costly, it can
form a best guess regarding those preferences and use that guess. This implies an equivalence strategy applied to the preference parameters. As those parameters enter the decisions non-linearly, a systematic error emerges. The authors examined the magnitude of the resulting error in inflation and output, following the assumption of certainty equivalence. Under all reasonable levels of uncertainty this error turned out to be small, but it involved trading a deflation bias against the cost of gathering the information needed for the full rational-expectations solution.

In a joint project with Viegi (University of Kwa-Zulu Natal), Demertzis compared the benefits of inflation targeting to alternative regimes. Inflation targeting provides clearer objectives that help pin down private sector expectations in the long run. They argued that the mechanism for achieving this rests on the fact that monetary policy can be perceived as a matching game in which private agents aim to co-ordinate their expectations and thus benefit from a clearly given signal that acts as a focal point. Therefore, they argued that, first, the credibility of the signal achieves co-ordination and, second, that the clarity of the signal achieves welfare improvements. To demonstrate this, they used Bacharach’s “variable universal game” framework, which allows for differences in individuals’ understanding and interpretation of the signals. As private agents benefit from co-ordination, they rely a lot on public signals. As a result, the Central Bank can help increase the welfare of agents by providing clear and precise signals that are conducive to co-ordination and thus welfare improvement.

In a joint project with Beetsma, Giuliodori used Vector Auto Regression (VAR) analysis to explore the (trade) spill-over effects of fiscal policy shocks in Europe. To enhance comparability with the existing literature, they first analysed the effects of these shocks at the national level. They employed identification strategies based on Choleski decomposition and structural VARs, both of which lead to the same results. Then, they turned to study the cross-border spill-overs of fiscal shocks via the trade channel and found that fiscal expansions in Germany, France and Italy lead to significant increases in imports from a number of European countries. This implies that co-ordinated temporary fiscal expansions might drag Europe out of a recession or an episode of unusually slow growth.

Some central banks have a reputation for being secretive. The justification for this in the literature is that transparency about its operations and beliefs hampers the central bank in achieving the best outcome. In other words, a central bank needs flexibility and therefore cannot be fully transparent. However, using a forward-looking new-Keynesian model, Hoeberichts found exactly the opposite. A conservative central bank improves output stabilization by being transparent about the procedures it uses to assess the economy and, especially, about the forecast errors it makes. Under certain conditions, transparency by a conservative central bank also improves interest rate stabilization. In addition, Hoeberichts found that more transparency makes it optimal for the central bank to be more conservative as the benefits from more transparency in terms of output stabilization are greater the more conservative the central bank is.

In the context of the Eurosystem’s Inflation Persistence Network (IPN), Hoeberichts investigated price-setting policies by Dutch firms on the basis of survey information. The objective was to identify sticky-price companies and the reasons behind the price stickiness. The particular appeal of the survey was its broad coverage of the Dutch business community: next to manufacturing, there were six types of service sectors. Moreover, all company sizes, ranging from single-employee firms to large companies, were covered. It was found that the degree of competition is very important in shaping price setting behaviour. With weak competition, prices are much more rigid. Also size and sector are relevant. Small firms - particularly single-person companies - adopt the most rigid prices. Prices for business-to-business services are more rigid than in the wholesale and retail sector. Among the motives for not changing prices or delaying price changes, informal and explicit contracts are the most relevant. Menu costs and attractive prices are unimportant. Finally, there was clear evidence of asymmetries in pricing behaviour. Respondents reported that the switch to the Euro up to now had little influence on their price-setting strategy.

It is sometimes argued that news reports in the media suffer from biased reporting. The literature identifies two types of media bias. One bias, called ideology, reflects a news outlet’s desire to affect
reader opinions in a particular direction. The second bias, referred to as spin, reflects the outlet’s attempt to simply create a memorable story. Competition between outlets can eliminate the effect of ideological bias, but increases the incentive to spin stories. Hoogduin examined if there was evidence of spin in Dutch newspaper reporting on the state of the economy. He constructed a variable that reflects the way consumers perceive economic news reported in newspapers and found that this variable indeed had a significant, though short-lived impact on consumer confidence.

Subprogramme D:
Aidis further developed the research on entrepreneurial activity in Lithuania that she began in her Ph.D thesis. Her work was a contribution to entrepreneurship research, to gender studies, and also to the analysis of the situation in Lithuania. Gërçhani developed the work from her Ph.D thesis further, for example, applying the notion of subjective poverty to Albania. Her work represents a contribution to the study of the informal sector (which is a world-wide phenomenon), to transition economics, and to the exploration of Albanian economic developments.

There is widespread dissatisfaction, among academic economists, national policymakers, and the general public in many of the countries concerned, about the wide discrepancy between the really existing transition and the original promises of the cornucopia that transition would bring. Ellman made a contribution to discussing this discrepancy and to developing policies to overcome it. The contribution to the discussion took the form of a paper at a panel at the ASSA/ACES meeting in San Diego in 2004. Besides contributing to transition economics, Ellman also contributed to Soviet and Russian economic history. In particular, he pointed out that Mironov’s use of anthropometric data to defend Witte is a misuse of statistics. He also queried the Davies-Wheatcroft interpretation of the 1931-34 Soviet famine and sharply criticised Allen’s monograph on Soviet economic history. The publication of Russian translations of Ellman’s work in this area is a sign that also Russian specialists regard it as an important contribution to knowledge. His seven contributions to the US Encyclopedia of Russian History show that his work in this field is also valued in the USA.

Resources and funding
The programme received a modest amount of funding € 11.156,- from the research institute RESAM in 2004. The money was mostly spent on costs related to conference visits by programme members and the replacement of a stolen laptop. Clearly this amount was not enough to even let all researchers visit a conference abroad once. Additional conference visits and other activities had to be sponsored by external funding from the European Commission (“3de geldstrom activiteiten”) and the Tinbergen Institute.

Key publications

Forthcoming


### Publications in numbers

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### Dissertations


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

**A**


**B**


C


Academic publications (in/of books) – refereed


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


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


Book reviews

Academic publications (working- and discussion papers)


Feng, J., Ellman, M. & Yuan, Z., Pension reform in China: Systemic or parametric? Universiteit van Amsterdam & Fudan University, Shanghai, China.


Professional publications


Popular publications

Contributions to academic conferences, workshops and seminars


Aidis, R. & Mickiewicz, T. (2004). Which entrepreneurs expect to expand their businesses? Evidence from Lithuania. RENT XVIII (Research in Entrepreneurship and Small Business Conference), Copenhagen, Denmark. Also presented at seminars at Wolverhampton University & the School of Slavonic & East European Studies (SSEES), University College London (UCL).


Other lectures on research


Organisational contributions to conferences, workshops and seminars


Leefmans, N.J. (2004). Organization of a conference on the collapse of multilateral co-operation and its implications for the relationship between the EU and developing countries in the fields of trade, aid, and international security. This conference took place in Brussels and brought together academics and policy makers from European and developing countries.


**Participation in academic networks & fellowships**

Beetsma, R.M.W.J. (2004). Research Fellow CEPR.


Beetsma, R.M.W.J. (2004). Fellow NAKE.


Ewijk, C. van (2004). Fellow NAKE.


Hoogduin, L.H. (2004). Member of the Steering Committee of the EABCN.


Jepma, C.J. (2004). Member National Committee Climate Research, NWO.


Editor or member of editorial board

Referee activities

**Membership of academic committees (including PhD-Committees outside the FEE)**
Ellman, M. (2004). Member Advisory Board of the Amsterdam Research Centre for Corporate Governance Regulation.
Hoogduin, L.H. (2004, 23 November), Member of the PhD committee of B. Slot, *Iedereen Kapitalist!* (TU Delft).

**Research contributions in the media**
Ewijk, C. van (2004, 12 October). Interview with *NRC*.

Grants, prizes and honours
Ewijk, C. van (2004, July). European Science Foundation/ NWO grant on research proposal Homeownership, Commuting and Labour Mobility, (Post-doc 0.3 for 2 years.)

Various activities
Ewijk, C. van (2004). Member Begeleidingscommissie SCP.
Ewijk, C. van (2004). Member Commissie van Deskundigen, Financieel Toetstingskader Pensioenfondsen, i.o.v. Minister van SZW.
Ewijk, C. van (2004). Member Commissie van Sociaal Economische Deskundigen van de SER.
Ewijk, C. van (2004 , 22 September). Debate on the Miljoenennota, RUG.
Ewijk, C. van (2004). Co-organiser/participant in the following EC sponsored research projects (on behalf of CPB): AGIR, DEMWEL, TAXBEN, REVISER (RTN), AHEAD.
Jepma, C.J. (2004). Member of program committee of the Energy Delta Institute.
Jepma, C.J. (2004). Member of the National Energy Transition management Team New Gas (TNG).
Human Capital

Subprogrammes:
- SCHOLAR
  - Population & Gender Economics
  - Social Inequality & Direct Welfare Measurement
  - Industrial Organisation

Programme director: Prof.dr. J. Hartog
Department: Economics
METIS-code: uva/fee/res/hum/prog
JEL-classification: I, J, L

Members of the research group and research in FTEs

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**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.

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15 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
Subprogrammes and projects

SCHOLAR
SCHOLAR is an NWO funded project to analyse the efficiency of the transition from education to the labour market and its consequences for economic development, as well as the equity aspects of the transition. Key questions relate to the optimal investment in schooling and training, the relation between home and school investments and implications for public policy.

Economics of organisation and personnel
This subprogram studies organisational and management phenomena (within firms) from a theoretical economic perspective. A better understanding of the process of coordination and motivation of people within organizations in relationship to corporate performance is core of the study. The focus of research applications usually lies in models on “markets or hierarchies”, personnel economics (designing incentive contracts and assigning property rights for employees and managers that motivate these agents to achieve organizational objectives), corporate governance and control. Economic theories underlying the explanation of observed phenomena are agency theory and incomplete contracting models. The frameworks used are based on game theory and price theory. Empirical research instruments in this area are econometric analysis of company data (across and within companies) and laboratory experiments.

Comparative gender and population economics
The Research Programme directly focuses on economic effects of changing gender relations in the family, the market and economic institutions. As such, it constitutes a coherent perspective and it develops concepts and expertise that are required to address current problems concerning work, care and income in economic and social policy.

Social inequality and direct welfare measurement
The labour market is an important distribution mechanism for income and individual welfare. We study both distributions and measurement issues. While the dominant approach in economics only considers utility (or welfare) measurements as revealed in actual choice behaviour as acceptable, with direct measures of welfare and risk attitudes, normative analyses gain considerable value. Applications include normative analysis of the tax structure, measurement of external effects and the relation between health and welfare. An important research topic in this subprogramme is the ageing problem and the consequent pension problem. One of the issues under study is improvement of human capital by education and training as a substitute for investing in physical capital.

Programme evaluation
The programme has performed quite satisfactorily in 2004, including several publications in top-rated journals and with top-rated publishing houses. Programme members are well embedded in international academic networks and have given seminars at many places.

The number of dissertations has been very low, but this will improve in future, as eight Ph.D. students are affiliated with the programme.

The academic standing and reputation of programme members is reflected in several ways: Oosterbeek is Dutch coordinator of a European network of economics of education and organised a meeting in Amsterdam, Plug co-organised a CEPR workshop, several programme members are on the board of reputed journals, Plug is on the Council of the European Society for Population Economics and Groot was awarded an honorary degree.

The NWO subsidy to SCHOLAR will be exhausted in 2005. SCHOLAR will continue as a research center, with unchanged ambitions, on basis of funding by the department. As this will now allow
maintaining staff at its present size: additional effort of external funding will be necessary. The grant obtained by Leuven (VENI, NWO) indicates that opportunities are available. The subprogramme on Gender and Population Economics has always been successful in obtaining external funding, and there is no reason to expect this to change in future.

**Resources and funding**

Funding by the department has been quite sober recently, because of budget deficits and the ensuing freeze on hiring faculty and Ph.D. students. Funds for traveling, conferences etc were quite low. SCHOLAR has managed to compensate this from its own resources, but this possibility will cease when external SCHOLAR funding ends.

<table>
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<table>
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Sloof, R. Finite horizon bargaining with outside options and threat points. *Theory and Decision*.


### Publications in numbers

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SUBPROGRAMME SCHOLAR

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

A


B


C

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


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


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


Academic publications (working- and discussion papers)


Sluis, J. van der, Praag, C.M. van & Witteloostuijn, A. van (2004). *Comparing the Returns to Education for Entrepreneurs and Employees, TI discussion paper 104/3.*


**Professional publications**


**Popular publications**


Contributions to academic conferences, workshops and seminars


Hartog, J. (2004, 14 January). UC Santa Barbara, USA. Do wages really compensate for risk aversion and skewness affection?


Klaauw, B. van der (2004). Labor market prospects, search intensity and the transition from college to work, CREST Paris. France

Klaauw, B. van der (2004). Labor market prospects, search intensity and the transition from college to work, University of Zurich. Switzerland.


Sluis, J. van der (2004, December). The returns to intelligence, Ph.D. Lunch seminar Tinbergen Instituut.

Organisational contributions to conferences, workshops and seminars
Praag, C.M. van (2004). Organizer of various ACCF conferences, workshops and seminars in Amsterdam

Participation in academic networks & fellowships
Hartog, J. (2004). Member of the KNAW.
Oosterbeek, H. (2004). member of program committee on education research (PROO) of NWO.
Maassen van den Brink, H. (2004). Local coordinator SCHOLAR in EQUALSOC, funded by EU in cooperation with AIAS.
Praag, C.M. van (2004). Fellow Tinbergen Instituut.

Editor or member of editorial board
Praag, C.M. van (2004). Associate Editor of Small Business Economics.
Membership of academic committees (including Ph.D. committees outside the FEE)
Hartog, J. (2004, 26 March). Member of the Ph.D. committee of Dupuy, A. Assignment and Substitution in the Labour Market. Universiteit van Maastricht. [promotor Prof. H. Heijke].

Referee activities
Sloof, R. Referee for Economica, Games and Economic Behavior, Managerial and Decision Economics.

Grants, prizes and honours
Maassen van den Brink, H. (2004). Grant voor Surf project ‘Community website for SCHOLAR(s), in cooperation with K. de Belder, UB, UVA.

Various activities
Hartog, J. (2004). Member Wetenschappelijke Adviesraad SEO.
Hartog, J. (2004). Member Wetenschappelijke Adviesraad IMES.
Maassen van den Brink, H. (2004). Member of the Board of SEO.
SUPBPROGRAMME SOCIAL INEQUALITY & DIRECT WELFARE MEASUREMENT

Dissertations

Academic publications (in/of) books – refereed

Working- and discussion papers

Professional publications

Participation in academic networks & fellowships
Praag, B.M.S. van (2004). Member of the KNAW (Koninklijke Nederlandse Akademie van Wetenschappen).

Grants, prizes and honours
Praag, B.M.S. van (2000-). Universiteitsprofessor.

Various activities
SUBPROGRAMME GENDER & POPULATION ECONOMICS

Dissertations

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

Academic publications (in/of books) – refereed

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

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

Academic publications (working- and discussion papers)

Wetzels, C.M.M.P. (2004). Does motherhood really make women less productive?


Professional publications


Popular publications


Contributions to academic conferences, workshops and seminars


Tijdens K.G. & Wetzels, C.M.M.P. (2004, 31 December). State of the art report to the European Commission on how to measure working hours, and working time preferences, as well as their major determining variables.


Other lectures on research


Tijdens, K.G. (2004, 6 October). CAO-à-la-car. Zoetermeer, ABVAKABO FNV, Presentation at an expert meeting ABVAKABO FNV.


**Organisational contributions to conferences, workshops and seminars**


Tijdens, K.G. (2004, 9 December). Ducadam congres over onderzoek naar CAO's. Amsterdam, AIAS, funded from the NWO-investment program middle large.


**Participation in academic networks & fellowships**


Kenjoh, E. (2002-2004). Invited researcher at the Center for Area Studies at Keio University, Tokyo, Japan.


**Editor or member of editorial board**


**Referee activities**


**Research contributions in the media**

Tijdens, K.G. (2004, 17 January). Interview in *PW.*


**Grants, prizes and honours**


**Various activities**


SUBPROGRAMME INDUSTRIAL ORGANISATION

Dissertations

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


Academic publications (in/of books) – refereed

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

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

Academic publications (working- and discussion papers)
**Professional publications**


**Popular publications**


**Contributions to academic conferences, workshops and seminars**


Other lectures on research

Organisational contributions to conferences, workshops and seminars
Onderstal, S. (2006). Member of the local organizing committee of the 33th EARIE conference. ENCORE. University of Amsterdam.

Participation in academic networks & fellowships

Editor or member of editorial board

Referee activities

Reprints

Various activities
Hinloopen. J. (2004). Academic Director ENCORE.
Theeuwes, J.J.M. (2003-). Member Wetenschappelijke Adviesraad SEO.
Theeuwes, J.J.M. (2004). Chair of the advisory committee on social statistics at Statistics Netherlands (CBS)

Theeuwes, J.J.M. (2002-). Member editorial board for social and cultural sciences of the Amsterdam University Press.
**History & Methodology of Economics**

Programme directors: Prof.dr. J.B. Davis & dr. G.A.T.M. Reuten

Department: Economics

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

JEL-classification: B


**Members of the research group and research in FTEs**

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**Programme design**

This research programme investigates the mutual connections in economics between theorizing, modeling, 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.

16 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
A central characteristic of recent economics is a renewed interest in the relation between economic behavior and social structure, as reflected in a succession of new views and ideas about how economic behavior and social structure are mutually influencing. These new currents in theory go hand in hand with new ideas about modeling, 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 modeling 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, modeling, 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 behavior 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

Programme evaluation
The History and Methodology of Economics Group remains very active in research and publication. The members of the Group made important contributions in 2004, and additional research is forthcoming for 2005. In addition to its usual internal and external seminars over the year, the Group organized a special seven week seminar series in September and October on neuroeconomics – a new field of research within behavioral economics – which brought in external experts in neuroscience research. Also, in mid-December, the Group sponsored a joint workshop with the Cachan, France History of Social Science Group. In August, the Group held the annual conference for the International Network for Economic Method, the main professional society in the field of methodology of economics. A special issue of the Network’s Journal of Economic Methodology based on the conference will be guest edited by Prof. John Davis in 2005. Edith Kuiper has recently obtained a three-year VENI grant for young researchers from the Dutch Organization for Scientific Research (NWO). Kuiper is also the President-Elect for the International Association for Feminist Economics. Other developments include the appointment of a new PhD researcher (Floris Heukelom, who will work on the recent history of neuroeconomics and behavioral economics) and the affiliation of three additional Research Associates with the Group.

Resources and funding
Financial resources for the group are scarce. Apart from the grant obtained by Edith Kuiper, already mentioned, Geert Reuten and Robert Went receive a 3-year grant from the European Commission for
maintaining and setting up intra-European academic networks. The group is working on extra external funding, some of which will presumably come about in 2005.

### Key publications


### Forthcoming


**Publications in numbers**

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


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


Maas, H. (2004). Contributions to The Biographical Dictionary of British Economists and The Dictionary of Nineteenth-Century British Scientists. Bristol: Thoemmes Continuum. Entries on: Babbage, Charles (1791-1871) (pp. 35-38) (3.598 words); Cairnes, John Elliot (1823-1875) (pp. 174-179) (3.851 words); Cobden, Richard (1804-65) (pp. 245-247) (1.628 words); Hartley, David (1705-57) (pp. 491-493) (1.685 words); Jenkin, Henry Charles Fleeming (1833-1885) (pp. 589-591) (1.250 words); Jennings, Richard (1814-1891) (pp. 591-592) (653 words); Jevons, William Stanley (1835-1882) (pp. 613-617) (2.001 words); Mandeville, Bernard de (1670-1733) (pp. 730-734) (3.149 words); Whewell, William (1794-1866) (pp. 1287-1289) (1.158 words). [B].


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


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

Book reviews

Academic publications (working- and discussion papers)

Professional publications

**Popular publications**

**Contributions to academic conferences, workshops and seminars**
Boumans, M.J. (2004, 18-21 November). Measurement outside the laboratory. 19th Biennial Meeting of the Philosophy of Science Association, Austin, Texas, USA.


Reuten, G. (2004). Marx's rate of profit transformation: problem within a false setting; a methodological appraisal of Marx's procedure, based on the texts of Capital III and


Other lectures on research


Organisational contributions to conferences, workshops and seminars


Morgan, M.S. (2004). Organiser for History of Economics Society’s 4 sessions at the ASSA/AEA Meetings, San Diego, USA. Also “Discussant” for one session.

Morgan, M.S. (2004). Organiser for International Network of Economic Method’s 2 sessions at the ASSA/AEA Meetings, San Diego, USA. Also, “Chair” for one session.


**Participation in academic networks & fellowships**

Boumans, M.J. (2004). Research associate of LSE Centre for Philosophy of the Natural and Social Science.

Boumans, M.J. (2004). Member of board Dutch-Flemish Network for Philosophy of Science and Technology.


Davis, J.B. (2004). Board Member, Erasmus Institute for Philosophy and Economics.


Morgan, M.S. (2002–). Fellow of the British Academy.

Morgan, M.S. (2002–). Overseas Fellow of the Royal Dutch Academy of Arts and Sciences.


**Editor or member of editorial board**


Morgan, M.S. (1996–). Editorial Board *Journal of Economic Methodology*.


Reuten, Geert (2004). Corresponding editor *Capital & Class*. 

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**Referee activities**


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


Davis, J.B. (2004). Invited external member PhD committee, Solange Marin, Federal University of Parana (UFPR), Brazil

Kuiper, E. (2004). Member of the program committee Annual Conference European Association for Evolutionary Political Economy (EAEPE), 29-31 October, Kret, Greece.

Kuiper, E. (2004). Member of the program committee for the Annual Conference International Association For Feminist Economics, 4-7 August, Oxford, UK.

**Research contributions in the media**


**Grants, prizes and honours**


Kuiper, E. (2004). NWO-VENI grant three year project on ‘Gender and Adam Smith’. €200,000,-.


**Various activities**


Experimental & Political Economics CREED

Programme Director:  Prof.dr. F.A.A.M. van Winden
Department:    Economics (AE)
METIS-code:   uva/fee/res/exp/prog
JEL-classification:  D7, D8
Web-address :  www1.fee.uva.nl/creed

Members of the research group and research in FTEs

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Total 3rd flow of funds 0.20 0.00 0.14
Total 1st f.o.f. excl. Ph.D.’s 3.88 4.35 3.11
Total 1st-3rd flow of funds 7.23 7.60 8.68
Ph.D. students 2.35 2.45 3.30

17 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
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 FEE 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 FEE. CREED was established in 1991 by a PIONIER-grant from the Netherlands Organization 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.

### Programme evaluation

With several new larger projects being started, sponsored by NWO and EU grants (see annual report 2003), and a research output showing continuity at a high quantity and quality level, the programme’s performance can only be evaluated as very satisfactory. Publications and projects are also well spread over the three different themes of the programme.

Also this year, members of the research group were frequently invited for lectures (among which several keynote addresses), and consulted by national and foreign institutions and media. With one of these institutions, the Shanghai University of Finance and Economics, an exchange program is now being worked out to help develop experimental economics in China. Another active knowledge transfer was to the new LIJIA laboratory of the business school of the Fundacao Getulio Vargas (FGV) in Sao Paulo, Brazil. CREED advised on how to set up the laboratory. In addition, lectures on how to organize experimental research were given, and an exchange program is being set up. International exposure was further boosted by organizing the International Meeting of the Economic Science Association, the international association for experimental economists. Furthermore, several junior and senior researchers visited CREED for a shorter or longer period, or affiliated themselves with CREED in the context of new projects. To give an example of the latter, the psychologist Marcel Zeelenberg (Tilburg University), an expert in emotion research, joined CREED’s research team that participates in the EU project ENABLE.

An important change in the research group took place through the acceptance by Jacob Goeree of the honorable offer to become a professor at the California Institute of Technology, a highly ranked institution in economics. We are very grateful to Jacob for his great enthusiasm, inspiration, and prolific research activity when he was a full professor at our institution. Fortunately, a new window of opportunity has opened up through the continuation of his VICI-project, which keeps Jacob connected to CREED.

Apart from the invitations to give a (keynote) lecture, awards and honors received this year include three CREEDers being ranked among the first ten in the Dutch Top40 for economists, a fellowship and a membership of the Royal Netherlands Academy of Arts and Sciences (KNAW), a fellowship of
IZA (Bonn University), and a visiting guest professorship at New York University. Finally, ongoing research on (co-) evolution of social behavior and institutions was reinforced by the affiliation of Matthijs van Veelen with CREED – sponsored by a VENI-grant from NWO – to do research on evolution and morality.

**Resources and funding**
The programme received a very modest amount of funding from the research institute RESAM. As last year, this money was mostly spent to cover (part of) the costs related to the participation in conferences by research group members. Additional means were obtained from external funding and the Tinbergen Institute (for the PhD-students).

Substantial additional means come from the Dutch science foundation NWO (several major grants), the European Union, and commissioned research for public and private institutions. For example, a major budget item like the payment of subjects participating in experiments at the CREED-laboratory is taken care of by using these external sources.

**Key publications**
Any publication over the last five years in journals classified as ‘AA’ by the Tinbergen Institute will be automatically mentioned here. These are: the *American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics*, and the *Review of Economic Studies*. In addition, at most one (more) publication considered to be key by the researchers themselves will be listed.


**Forthcoming**


**Publications in numbers**

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

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**A**


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


**Academic publications (working- and discussion papers)**


Sonnemans, J., Dijk, F. van & Winden, F.A.A.M. van (2004). *On the dynamics of social ties structures in groups* (An earlier version of this paper was titled: *Group formation in a public good experiment*).

**Contributions to academic conferences, workshops and seminars**


Wakker, P.P. (2004, 4 May). Using Descriptive Decision Theories such as Prospect Theory to Improve Prescriptive Decision Theories such as Expected Utility; the Dilemma of Omission versus Paternalism. Irvine. Invited lecture.


Other lectures on research


Organisational contributions to conferences, workshops and seminars


**Participation in academic networks & fellowships**
Riedl, A. (2003-). Fellow Tinbergen Institute, Amsterdam.
Riedl, A. (2001-2002). Fellow Center for interdisciplinary research, ZiF. Bielefeld, Germany.

**Editor or member of editorial board**

**Referee activities**
Wakker, P.P. (2004). Wrote about 30 referee reports and handled about 15 papers as editor.

131
Membership of academic committees (including Ph.D. committees outside the FEE)
Schram, A.J.H.C. (2004, 3-10 January). Member of program committee, University Grants Committee; Hong Kong.
Winden, F.A.A.M. van (2004). International evaluation committee for National Centres of Competence in Research, Swiss National Science Foundation.

Research contributions in the media
Riedl, A. (2004). Interview in VPRO gids and several interviews in Volkskrant following the large behavioural experiment called “Speel je Rijk” done in May in co-operation with VPRO.
Winden, F.A.A.M. van (2004, 6 April). Interview at the BBC.

Grants, prizes and honours

Various activities
**Other Research**

*Department:* Economics  
*METIS-code:* uva/fee/res/ore/prog

**Members of the research group and research in FTEs**

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Total 1st f.o.f. excl. Ph.D.’s: 0.41 0.13 0.09

**Dissertations**


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


**Other lectures**


**Organisational contributions to conferences, workshops and seminars**


**Various Activities**


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18 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
Amsterdam Economics
SEO Stichting Economisch Onderzoek

Subprogrammes: Regional Economics & Transport
Labour Economics & Education
Health Economics & Social Security
Regulation & Competition Policy
Aviation Economics

Programme Director: Prof. dr. C.N. Teulings
METIS-code: uva/fee/seo/seo/prog
JEL-classification: I, J, L, Q, R
Web-address: www.seo.nl

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Regional Economics & Transport

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| Koopmans, C.C.        | prof dr     | hgl      | 0.75       | 0.75       | 1.00       | SEO   | 3       |
| Lieshout, R.B.T.      | drs         | oz       | -          | -          | 1.00       | SEO   | 3       |
| Rosenberg, F.A.       | dr          | oz       | -          | -          | 0.77       | SEO   | 3       |
| Vegt, C. van der      | drs         | oz       | 1.00       | 1.00       | 0.80       | SEO   | 3       |

Labour Economics & Education

Berkhout, E.E.         | drs         | oz       | 1.00       | 1.00       | 1.00       | SEO   | 3       |
| Berkhout, P.H.G.      | drs         | oz       | 0.84       | 0.84       | 0.84       | SEO   | 3       |
| Biermans, M.C.        | drs         | oz       | 0.08       | 1.00       | 1.00       | SEO   | 3       |
| Budil-Nadvorniková, H.M. | ir     | oz       | 0.50       | 0.50       | 0.50       | SEO   | 3       |
| Graaf, D. de          | drs         | oz       | 1.00       | 1.00       | 1.00       | SEO   | 3       |
| Korteweg, J.A.       | drs         | oz       | 1.00       | 1.00       | 1.00       | SEO   | 3       |
| Leeuwen, M.J. van     | drs         | oz       | 1.00       | 1.00       | 1.00       | SEO   | 3       |
| Winter, J.M. de       | drs         | oz       | 1.00       | -          | -          | SEO   | 3       |
| Zijl, M. van          | drs         | aoio     | -          | -          | 0.40       | SEO   | 1       |
| Zijl, M. van          | drs         | oz       | -          | -          | 0.60       | SEO   | 3       |

19 The numbers in the columns represent the research-time earned with publications under the RESAM-system.
Programme design

SEO Amsterdam Economics was founded in 1949 as a contract research institute by the Department of Economics of the University of Amsterdam. Since then SEO has operated successfully in the market for applied economic research and analysis. Today, research is carried out by a staff of about 30 professionals, mostly economists and econometricians. With its supporting staff of about ten, SEO is a middle-sized economic research institute and a major player in the higher segment of the market for applied economic research in The Netherlands. Contract research and consultancy for international organisations (Worldbank, European Commission, US AID, US Bureau of the Census) is a growing activity of SEO Amsterdam Economics. Research results are published in the SEO research report series and frequently presented at seminars and conferences.

Core markets

SEO consists of five research clusters:

Regional Economics & Transport

An important activity within this cluster is the monitoring of the regional economy of greater Amsterdam, resulting in a yearly publication discussing the economic conditions and prospects of the Amsterdam area. Other activities in this cluster are the research on the building and housing market and the development of a value assessing instrument for commercial and office buildings.

Labour Economics & Education

Economic analysis in this cluster concerns the transition from school to the labour market, flexible labour and the educational choice of pupils and students, wage inequalities and the development of the Dutch information economy. Annually published research monographs are the Education and Labour Monitor analysing the initial labour market experiences of higher educated labour market entrants and the Study Choice Monitor documenting the educational choices of students at the end of secondary schooling.
Health Economics & Social Security
Important projects of the health economics and social security cluster are the development of an allocation model for social security benefits (to provide local authorities with incentives to get welfare recipients back on the job), research on local poverty policy, the demand for medical treatment and the demand for and supply of child care.

Regulation & Competition Policy
This is a research area of growing importance, as witnessed by the increasing impact of the Dutch Competition Authority (NMa), and the development of regulation policy in the last years. It belongs to the new innovative research fields of this moment. Recent research projects concern entry into the telecommunication market and vertical integration in the market for schoolbooks and the relation between productivity and competition and cartel agreements in the building sector.

Aviation Economics (AAE)
AAE is the youngest cluster within Amsterdam Economics. In 2003 AAE was involved in a growing range of aviation economics projects. Recent reports concern:
- airroutes over Amsterdam, airline alliance scenarios
- improving the KLM hub & spoke system, accessibility of an offshore airport, relocation of Naples airport and airport licensing.

SEO research is independent of the commercial and political interest of the contractants. Research contracts can be from ministries, local governments or international organisations, but also private companies and non-governmental institutions contribute an important part to the contract portfolio.

Organisation
SEO Amsterdam Economics is an independent research institute without much bureaucracy. Most of the research is done in house, but SEO co-operates frequently with other research institutes such as Intomart, the SCO-Kohnstamm Institute, AROMedia, ECN, IviR (Instituut voor Informatie recht), AIAS (Amsterdams Instituut voor Arbeidsstudies) and PricewaterhouseCoopers. SEO has a non-executive board of 7 members and a council of advisors who meet regularly and discuss the research programme of SEO. The management team of SEO (consisting of the general director and heads of research clusters) takes care of daily policy.

Science
SEO regularly publishes in Dutch 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. SEO holds an NEN-EN ISO 9001-2000 quality certificate for Applied Economic Research and Consulting

Programme Evaluation
Academic publications made by members of SEO Amsterdam Economics are usually a spin-off from contract research, SEO’s main activity. This year 10 articles in refereed journals were published plus 2 refereed book publication. The number of non-refereed academic publications was large.

SEO also creates a stimulating environment for Ph.D. research. Like in previous years, a thesis was defended successfully by one of SEO’s contract researchers. Overall, academic output has remained fairly constant over the years.
Key Publications

Forthcoming

Publications in numbers

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<td>C</td>
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<td>b) in other journals</td>
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<td>c) book chapters</td>
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<td>2) Monographs</td>
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<td>5) Popular publications</td>
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<td>6) Working papers</td>
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Dissertations

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

A


C


Academic publications (in/of books) – refereed


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


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


**Professional publications**


**Working- and Discussionpapers**


**Popular publications**


Contributions (lectures) to conferences, workshops and seminars


Teulings, C.N. (2004, 17 September). Deelnemer discussiepanel op TV1, 9.15-10 uur Commissie Duivensteijn over de Betuwelijn en HSL.


Wit, J.G. de (2004). Member of the Advisory board of the annual Hamburg Aviation Conference.


Other lectures on research

Research contributions in the media


Denemarken is het voorbeeld: door soepel ontslagrecht is werkloosheid geen schande. *NRC Handelsblad*, 9.


Wit, J.G. de (2004, 3 February). Television interview RTLZ on the impact on the low cost carriers after the EC decision on the Charleroi airport charges.


Wit, J.G. de (2004, 8 May). Interview RTL4 news, item on low costs carriers.

Wit, J.G. de (2004, 22 December). Interview for the *De Ingenieur* on the introduction of the A380.


*Participation in Academic Networks*


Membership editorial staff or referee activities
Kok, L. (2003-). Member editorial board TPE.
Kok, L. (2003-). Member editorial-advisory board Rendemens.
Teulings, C.N. (2002-). Member editorial board ESB (Economisch Statistische Berichten).
Wit, J. G. de (2004-). Member of the editorial board Journal of Air Transport Management.
Wit, J.G. de (2004-). Member of the editorial board Journal of Air Transportation.

Referee activities
Wit, J.G. de (2004-). Referee for Tijdschrift voor Vervoerswetenschappen.

Membership of academic committees (incl. PhD committees inside or outside the FEE)
Burghouwt, G. (2004). Member of the Urban and Regional Research Centre Utrecht (URU).
Leeuwen, M.J. (2003). Member advisory board Rapportage Sport SCP.
Teulings, C.N. (2004). Member manifesto committee of the political party PvdA.
Teulings, C.N. (2003-). Member of the Committee Dijkstal (salaries political and civil top).
Teulings, C.N. (2001-). Member of the CPC (Central Planning Committee) of the CPB (Central Planning Bureau).
Wit, J.G. de (2004). Member of the German Aviation Research Society.
Wit, J.G. de (2004). Member of the Aviation Forecasting and Economics Committee of the Transportation Research Board USA.
APPENDIX I  LIST OF PERSONS, COMMITTEES AND ADDRESSES

Board Faculty
Dean FEE:         Prof.dr J. van der Gaag
Managing director:  R.K. Popma
Managing Director RESAM:   Prof. dr H. Oosterbeek
Managing Director AgBS-R1:  Prof. dr A. Kolk
Managing Director Onderwijsinstituut:  Prof.dr J.C.M. van Ophem

Advisory committees
The Council of Programme Leaders advises de Managing Director RESAM on academic issues and
research policy. Members of the council are
Prof. dr J. Kiviet, Prof. dr ir N.M. van Dijk, Prof. dr C. Hommes, Prof. dr R. Kaas, Prof. dr R.
Beetsma, Prof. dr J.B. Davis, Dr. G. Reuten, Prof. dr F.A.A.M. van Winden, Prof. dr C.N. Teulings.

The External Advisory Committee (EAC) advises the Managing Director RESAM on research policy
and strategy. The EAC usually meets once every two years and is involved in the self-evaluations and
VSNU visitations, like the one in 2001. The members are
Prof. dr J. van Benthem, UvA , Dr H. Don (CPB) and Prof. dr B. Wolfe, University of Wisconsin,
Madison (USA).

Programme Leaders
UvA-Econometrics:        Prof.dr J.F. Kiviet
Operations Research:     Prof.dr N.M. van Dijk
Equilibrium, Expectation & Dynamics:  Prof.dr C.H. Hommes
Actuarial Science:       Prof.dr R. Kaas
The Transformation of Europe:  Prof.dr R.M.W.J. Beetsma
Human Capital:          Prof.dr J. Hartog
Methodology & History of Economics:  Prof.dr J.B. Davis & Dr G.A. Reuten
Experimental and Political Economics:  Prof.dr F.A.A.M. van Winden
Amsterdam Economics (SEO):  Prof.dr C.N. Teulings

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Appendices

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Spange, M.  TOE  AE  -
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APPENDIX II  

Abbreviations

AAE  Aviation Economics (SEO cluster)
ACES  Association for Comparative Economic Studies
ADR  American Depositary Receipts
AE  Algemene Economie (afdeling)
Economics (department)
AER  American Economic Review
Afd  Afdeling
Department
AgBS  Amsterdam graduate Business School
AgBS-RI  Amsterdam graduate Business School Research Institute
AIAS  Amsterdams Instituut voor Arbeidsstudies
AIID  Amsterdam Institute for Labour Studies
AIO  Assistent in Opleiding (promovendus)
Ph.D.-student
AR  Autoregression
ARCH  Autoregressive Conditional Heteroskedasticity
BIB  Bibliotheek
Library
Burs  Bursaal
Ph.D.-student
B/R  Books & Reports
BS  Business Studies (department)
BV  Bedrijfsvoering
Operational Management
CAPM  Capital Asset Pricing Model
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
CPNSS  Centre for Philosophy of Natural and Social Sciences
CPB  Centraal Plan Bureau
Central Planning Bureau
CREED  Center for Research in Experimental Economics and Political Decision Making
CUP  Chicago University Press
DNB  De Nederlandsche Bank
The Dutch Central Bank
Drs  Doctorandus (Dutch equivalent of master title)
EC  European Commission
ECB  European Central Bank
ECN  Energieonderzoek Centrum Nederland
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
Appendices

FEE Faculty of Economics and Econometrics
FEZ Financieel-Economische Zaken
      Financial Department
FGV Fundacao Getulio Vargas
FTE Full Time Employment (equivalent)
FIG Facultaire Informatiseringsgroep
      Computer & Information Technology Services
FZ Facultaire 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
IO Industrial Organization
IPN Inflation Persistence Network
IVIR Instituut voor Informatierecht
      Institute for Information Law
IZA Forschungsinstitut zur Zukunft der Arbeid
      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 Moderniserings Universitair Bestuur (law on the
      modernizing of university governance)
NAKE Netwerk Algemene en Kwantitatieve Economie
NMa Nederlandse Mededingings autoriteit
      Dutch Competition Authority
NWO Nederlandse Organisatie voor Wetenschappelijk Onderzoek
      Netherlands Organisation for Scientific Research
NWO-MaG NWO-Maatschappij & Gedrag
      NWO-Social and behavioural sciences
OBP Ondersteunend & Beheerspersoneel
      Support staff
ONB Onbekend (tijdschriften)
      Publications with no ranking
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<th>Definition</th>
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<td>OZ</td>
<td>Onderzoeker (Researcher)</td>
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<td>OVO</td>
<td>Overig Onderzoek (Non-programme research)</td>
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<tr>
<td>OWI</td>
<td>Onderwijsinstituut (Teaching Institute)</td>
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<tr>
<td>OZI</td>
<td>Onderzoekinstituut (Research Institute)</td>
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<tr>
<td>PDOC</td>
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<td>Ph.D.</td>
<td>Philosophy Doctor</td>
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<td>PL</td>
<td>Personele lasten (Costs of personnel)</td>
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<td>Postdoc</td>
<td>Postdoctoral fellow</td>
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<td>PPP</td>
<td>Purchasing Power Parity</td>
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<td>PersoneelsZaken (Personnel Department)</td>
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<td>RBC</td>
<td>Risk Based Capital</td>
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<td>RESAM</td>
<td>Research institute in EconomicS &amp; econometrics Amsterdam</td>
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<td>RTN</td>
<td>Research Training Networks (EU)</td>
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<td>S&amp;P</td>
<td>Standard &amp; Poor</td>
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<tr>
<td>SCHOLAR</td>
<td>Schooling, Labour Market and Economic Development</td>
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<tr>
<td>SCE</td>
<td>Society for Computational Economics</td>
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<td>Secr.</td>
<td>Secretariaat</td>
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<td>SEO</td>
<td>Stichting voor Economisch Onderzoek (Amsterdam Economics)</td>
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<tr>
<td>SGP</td>
<td>Stability and Growth Pact</td>
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<tr>
<td>STREP</td>
<td>Specific Targeted Research or Innovation Project</td>
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<tr>
<td>SWOT</td>
<td>(Analysis of) Strengths, Weaknesses, Opportunities &amp; Threats</td>
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<tr>
<td>TAR</td>
<td>Threshold Autoregression</td>
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<tr>
<td>TI</td>
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<td>UCL</td>
<td>Université Catholique de Louvain</td>
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<tr>
<td>UD</td>
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<td>UHD</td>
<td>Universitair Hoofddocent (Associate Professor)</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>Universiteit van Amsterdam</td>
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<td>Vereniging van Samenwerkende Nederlandse Universiteiten Association of Universities in the Netherlands</td>
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<td>Vrije Universiteit Amsterdam (Free University Amsterdam)</td>
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