

RESEARCH PROGRAM

IUI

Yearbook 1998/99



1999



IUI, The Research Institute of Industrial Economics
Stockholm

IUI YEARBOOK 1998/99

Foreword

A new feature of the world economy is the increased extent of institutional competition across international boundaries. This competition constitutes one reason for the observed higher degree of “footlooseness” of financial and physical capital, a development that gained momentum in the mid-1980s. More recently, international mobility has also embraced human capital. During the 1990s, skilled labor has developed a much higher propensity for movement between countries. This international movement has repercussions for the location of high value-added activities, ranging from today’s topical issue of headquarter location to the location of skill-intensive production in general. Deregulation, superior language abilities, and easily accessible information ensures that the sensitivity of skilled labor to cross-country wage differentials has increased substantially.

The future looms with the need for the next generation of skilled labor. Therefore, it is particularly important that national institutions and incentive structures do not discourage the growth of a skill-intensive labor force. At the same time, this must be paralleled with internationally competitive labor costs on the level of firms. If policy fails in those respects, then despite the relatively rosy short-term prospects for the Swedish economy, the long-term consequences may be rather gloomy. One could easily conceive a long-term development characterized by “brain-drain” and the successive relocation of skill-intensive production outside Sweden. Such patterns of agglomeration have been shown to be extremely hard to turn around, leaving countries or regions with different long-term growth patterns.

IUI, having a solid research tradition in the areas of labor economics and internationalization, is well positioned to analyze these issues. The influence of the internationalization process on the labor market is bound to become a central part in future analysis of economic policy.

Stockholm 1999

Håkan Mogren
Chairman of the Board



Members of IUI's staff (from left to right): Magnus Henrekson, Assar Lindbeck, Roger Svensson, Ulf Jakobsson, Helen Jakobsson, Jörgen Weibull and Per Thulin.



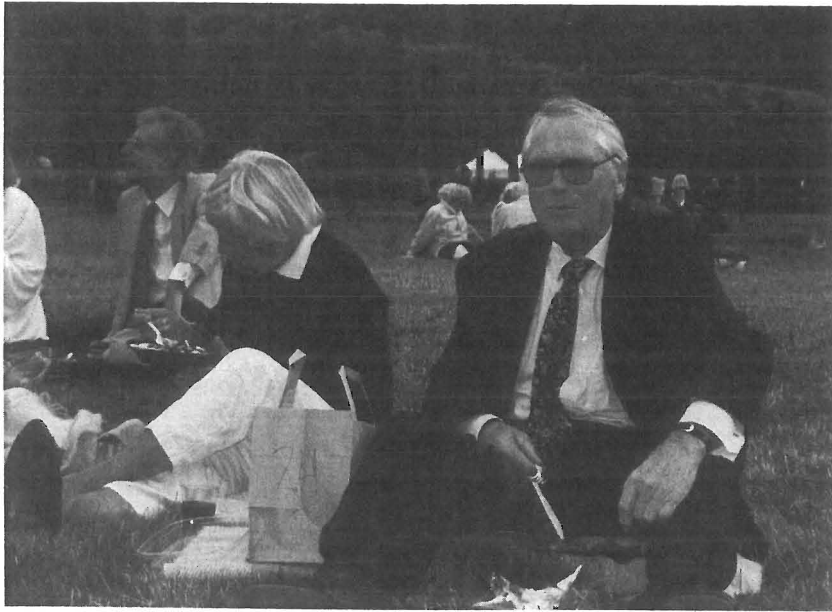
Members of IUI's staff (from left to right): Lars Persson, Sven-Olof Fridolfsson, Mattias Ganslandt, Pontus Braunerhjelm, Elisabeth Gustafsson, Karolina Ekholm and Henrik Braconier.



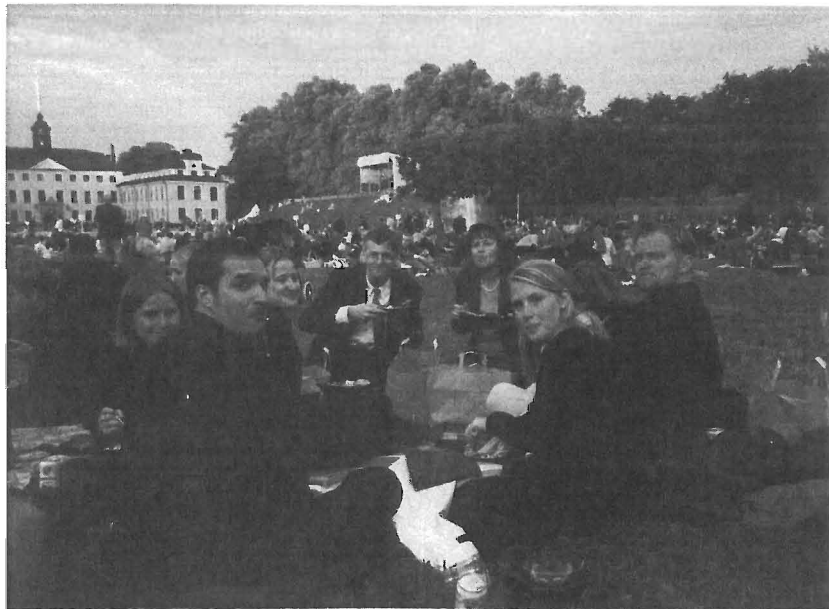
Members of IUI's staff (from left to right): Pavel Pelikan, Pehr-Johan Norbäck, Johan Stennek, Erika Ekström, Anna Ahlberg, Erik Mellander and Jörgen Nilson. The following staff members were not present: Maria Hedström, Marie Hesselman, Eugenia Kazamaki Ottersten, Lars Oxelheim, Paul Segerstrom, Per Skedinger, David Sundén and Thomas Tangerås.



Pehr-Johan Norbäck, Sven-Olof Fridolfsson, Johan Stennek, Anna Ahlberg, Henrik Braconier and Helen Jakobsson joined IUI during 1998/1999. Marie Hesselman and David Sundén, who also joined IUI during the last year, were not present.



IUI celebrated its 60th anniversary with a visit to a gala performance at the Royal Ulriksdal. Kerstin and Gösta Bystedt enjoy a picnic dinner in the beautiful park at the Ulriksdal Castle. Martin Leimdörfer (in the background) also participated in the celebration. Below, some IUI-staff members get ready for more cultural events.



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Presentation of IUI

IUI (Industriens Utredningsinstitut) is an independent non-profit research institution founded in 1939 by the Federation of Swedish Industries (Sveriges Industriförbund) and the Swedish Employers' Confederation (Svenska Arbetsgivareföreningen). Located in central Stockholm, IUI conducts both empirical and theoretical research on economic issues of importance for long-term industrial development in Sweden. The emphasis is, however, on applied economics.

IUI has always had a high academic profile. Altogether, 56 dissertations in economics originate here, and a significant part of the IUI's work has been published in international scientific journals and books. Many Swedish professors of economics have also spent part of their research careers at IUI. It is certainly the aim of IUI to continue to meet the challenges posed by the quality requirements of the international academic community. In order to achieve this aim, research is concentrated on a limited number of areas. The two main research programs pursued at IUI are: (1) Knowledge Accumulation, Human Capital and Economic Growth and (2) Industrial Organization and International Specialization.

Organization

The majority of the IUI research staff hold a doctorate in economics. Staff size has been fairly stable over the years, comprising the equivalent of 15–20 full-time researchers. Doctoral students are also offered the opportunity to work on their dissertations at IUI.

IUI's board of directors is made up of leading industrialists. The board appoints the director of IUI and approves the budget and research projects. The organization of research projects follows academic principles, and the researchers publish their results in academic journals. Affiliated researchers have full academic freedom in their choice of methodology and, of course, in the conclusions they draw. The board neither approves nor is responsible for any results published.

IUI conducts open academic seminars and maintains many formal and informal relations with leading universities and other research institutions around the world. International contacts are extensive and foreign scholars regularly visit the institute. Generous contributions from the Marianne and Marcus Wallenberg Foundation make many of these activities possible. During 1996, IUI also initiated a seminar series on "Human Capital and Economic Growth" at which leading international scholars are invited to give their views on current research

and policy issues in this field. This highly appreciated seminar series would not have been possible without financial support from Astra AB and Telefonaktiebolaget LM Ericsson AB.

Financial Sources

The principals of the Institute, namely the Federation of Swedish Industries (Sveriges Industriförbund) and the Swedish Employers' Confederation (Svenska Arbetsgivareföreningen), provide about 60 percent of the budget. Further financial support comes primarily from various research funds. Generous financial support of the following bodies is gratefully acknowledged: The Swedish Council for Work Life Research, the European Commission, Directorate General DGIA (Tacis ACE Programme), The European Commission Directorate General XII, Science, Research and Development (TSER), CEDEFOP – European Centre for the Development of Vocational Training, The Office of Labour Market Policy Evaluation, The Ruben Rausing Foundation for Research on Entrepreneurship and Innovations, the Bank of Sweden Tercentenary Foundation, the Joint Committee of the Nordic Social Science Research Councils, the National Board for Industrial and Technical Development, the Swedish Competition Authority and the Marianne and Marcus Wallenberg Foundation.

Board of Directors

The board of directors is appointed by the principals and comprises leading industrialists, as well as the directors of the two principals.

Håkan Mogren, Chairman of the Board
Gösta Bystedt
Lars-Åke Helgesson
Martin Leimdörfer
Per Olofsson
Carl Wilhelm Ros
Göran Tunhammar
Ulf Jakobsson, Director of the Institute

Staff*Director*

Ulf Jakobsson

Deputy Director

Pontus Braunerhjelm

Research Staff

Henrik Braconier

Pontus Braunerhjelm

Karolina Ekholm

Erika Ekström

Sven-Olof Fridolfsson

Mattias Ganslandt

Magnus Henrekson

Marie Hesselman

Helen Jakobsson

Eugenia Kazamaki Ottersten (on leave)

Assar Lindbeck

Erik Mellander

Pehr-Johan Norbäck

Lars Oxelheim

Pavel Pelikan

Lars Persson

Paul Segerstrom (until June 25, 1999)

Per Skedinger

Johan Stennek

David Sundén

Roger Svensson

Thomas Tangerås (on leave)

Jörgen Weibull

Administrative Staff

Anna Ahlberg

Elisabeth Gustafsson

Maria Hedström

Jörgen Nilson

Per Thulin

Visiting Researchers

Gary W. Anderson, Jr., University of Maryland at College Park
Bo Carlsson, Case Western Reserve University, Cleveland
Emin M. Dinlersoz, University of Rochester
Shanto Ghosh, Boston University
Edvard Johansson, Swedish School of Economics and Business Administration,
Helsinki
Seppo Honkapohja, University of Helsinki
Ignatius J. Horstmann, University of Western Ontario and University of Toronto
Morten Hviid, University of Warwick and University of Copenhagen
Torunn Kvinge, Forskningsstiftelsen FAFO, Oslo, and Sosialøkonomisk Institutt,
Oslo University
Dan Kavenock, Purdue University
Edvard Lazear, Stanford University
Thomas Y. Mathä, University of East Anglia, Norwich
Charles Noussair, Purdue University
Paul Segerstrom, Michigan State University
Horst Siebert, Kiel Institute of World Economics
Rune Stenbacka, Swedish School of Economics and Business Administration,
Helsinki
Georgi Trofimov, The Institute for Financial Studies, Moscow
Dieter M. Urban, Copenhagen Business School
Philip Vermeulen, Stanford University
Yves Zenou, E.R.M.E.S/C.E.R.A.S, Sorbonne, Paris II

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News at IUI

IUI, founded in 1939, passed its 60th anniversary in 1999. This event was celebrated by visiting a gala performance at the Royal Ulriksdal, where both the IUI staff and members of the board attended.

In January, the 1999 SNS (Center for Business and Policy Studies) Economic Policy Group headed by Ulf Jakobsson and including IUI researchers Pontus Braunerhjelm and Stefan Fölster (now HUI [the Swedish Research Institute of Trade]) presented its report. It was the second consecutive report where a majority of the authors had an IUI affiliation. The upcoming report will also have an IUI connection, because the author group is headed by professor Assar Lindbeck who is affiliated with IUI on a 40 percent basis. IUI researchers have long taken active parts in the public debate as evident from the table on the following page. During the 1990s, Pontus Braunerhjelm, together with Assar Lindbeck, were the two most-published authors in *Ekonomisk Debatt*.

The past year has witnessed several changes in the IUI staff. Foremost, Stefan Fölster left IUI in September after 11 years of highly appreciated research contributions and participation in lively debates within and outside IUI. Fölster was offered the post as director of HUI in September last year. Also, Karl-Markus Modén, who has been at IUI since 1992, has accepted a post as lecturer and research co-coordinator at Karlstad University. Professor Paul Segerstrom, who has been a visiting scholar at IUI in the academic year 1998-1999, will return to Michigan in August 1999. Furthermore, Markus Asplund, affiliated with IUI on a part-time basis, has returned to Stockholm School of Economics full time. Also, research assistant Ola Ghatnekar left IUI to take up a similar position at IHE (The Institute of Health Economics) in Lund. Finally, Anna Sjögren left to continue her pilot career.

IUI would like to express its gratitude to all former colleagues and friends for their efforts at IUI and wish them good luck with their new positions.

To compensate for these losses, the following recruitments have taken place. In January, Johan Stennek, formerly at IIES (the Institute for International Economic Studies) joined IUI, which means that IUI has strengthened its research position within the field of strategic behavior in firms, competition rules, and mergers and acquisitions. This field has recently developed into a focal issue in research as well as in the public debate. From Stockholm University, Pehr-Johan Norbäck has been recruited, after successfully defending his Ph.D. in late November 1998. Also Henrik Braconier, formerly at Lund University, joined IUI in November 1998. Furthermore, three new doctorate students have become affiliated with IUI

during the last academic year; Sven-Olof Fridolfsson, Helen Jakobsson and Thomas Tangerås. In addition, Marie Hesselman will assist the researchers engaged in the project on internationalization of Swedish multinational firms. Last, but not least, Anna Ahlberg has replaced Anna Sjögren in the administrative staff.

Contributors to Ekonomisk Debatt 1990–1999*

	Author	Institution	Number of Articles/ Comments	Number of Pages**
1	Braunerhjelm, Pontus	IUI	10	79
2	Lindbeck, Assar	IIES/IUI	8	79
3	Svensson, Lars E.O.	IIES	8	75
4	Calmfors, Lars	IIES	13	73
5	Henrekson, Magnus	IUI	15	66
6	Hedlund, Stefan	Uppsala University	8	63
7	Persson, Mats	IIES	6	59
8	Svedberg, Peter	IIES	4	53
9	Hultkrantz, Lars	Uppsala University	11	52
10	Söderström, Hans Tson	SNS	10	50
11	de Vylder, Stefan	Consultant	4	49
12	Radetzki, Marian	SNS	4	46
	Fölster, Stefan	HUI	5	46
14	Korpi, Walter	Stockholm University	6	44
	Gustafsson, Björn	Göteborg University	7	44
16	Torstensson, Johan	Lund University	8	41
17	Holmlund, Bertil	Uppsala University	8	40
18	Sandelin, Bo	Göteborg University	11	36
	Nilsson, Jan-Eric	Stockholm University	6	36
20	Eklund, Klas	S E Bank	5	35
21	Wadensjö, Eskil	Stockholm University	6	34
22	Lundberg, Lars	FIEF	3	31
23	Hjalmarsson, Lennart	Göteborg University	6	30
24	Erixon, Lennart	Stockholm University	3	29
	Löfström, Åsa	Umeå University	3	29
26	Skedinger, Per	IUI	4	28
	Assarsson, Bengt	Uppsala University	3	28

*Among the top 12 contributors, 3 (or 25 percent) are or have been full-time IUI researchers (including Stefan Fölster). If part-time employees are included in these numbers, this figure increases to 33 percent.

** Weighted by number of co-authors, e.g. if two authors have written a joint article, each author is attributed half the number of pages.

Other Activities

Henrik Braconier joined IUI in November 1998. He works on issues of research and development, growth, trade and multinational firms. Since he joined the institute, he has published one article in *Weltwirtschaftliches Archiv* (with Fredrik Sjöholm) and one article is forthcoming in *Review of Development Economics*. Joint work with Richard E. Baldwin and Rikard Forslid on endogenous growth and multinationals has been completed during the spring 1999 and is forthcoming as a Centre for Economic Policy Research (CEPR) working paper. Together with Karolina Ekholm he has also conducted a study on multinational firms and wage competition. In addition, a study on fiscal indicators and the sensitivity of public finances for the Nordic countries (with Steinar Holden) was undertaken for the Nordic Council of Ministers.

Pontus Braunerhjelm is responsible for IUI's research on multinational firms (MNFs) and international trade. During the year he had articles accepted for publication in *Weltwirtschaftliches Archiv*, *Small Business Economics* and *Wirtschaftspolitische Blätter*. He also contributed to the 1999 report of SNS Economic Policy Group, *Vägen till Välstånd (The Road to Prosperity)*. Furthermore, he has concluded the book *Knowledge Capital, Firm Performance and Network Production*, soon to be published by Kluwer Academic Publishers. His Swedish publications include two articles in *Ekonomisk Debatt*. He has had articles accepted at EARIE (European Association for Research in Industrial Economics), International Economic Association (IEA) and Western Economic Association (WEA). Pontus Braunerhjelm is also an SNS-associated researcher. He has been invited to contribute to CEPR's series *Monitoring European Integration*. This year's theme is "Towards New Geography in Europe". The report, headed by Professor V. Norman, will be presented in February 2000.

Karolina Ekholm has been in charge of a new survey of Swedish MNFs that has been conducted during the year. The survey has been carried out to update IUI's detailed database on the foreign activities of Swedish multinationals. During spring 1999, she was a visiting fellow at the Centre for Economic Performance at London School of Economics. Her research has dealt mainly with labor market effects of foreign direct investment. In spring 1999 she became an affiliate of the Centre for Economic Policy Research, which coordinates the activities of a European network of research fellows.

Erika Ekström continued her research in the TSER project, Education and Training: New Job Skill Needs and the Low-Skilled. Her research has focused mainly on the demand for the low-skilled worker in the French manufacturing

sector. She has also, together with Ola Ghatnekar, conducted interviews concerning the education and training policy in five Swedish manufacturing firms.

Sven-Olof Fridolfsson, a Ph.D. student in economics, joined the Institute in February 1999. He is currently working on his thesis in the area of industrial organization, with an emphasis on competition policy and merger control.

Mattias Ganslandt continued his research in industrial organization and market integration. He presented papers at the European Economic Association's (EEA) meeting in Berlin, the WEA meeting in San Diego, and the Nordic International Trade Seminars' (NOITS) workshop in Bergen. In May 1999, he successfully defended his Ph.D. thesis at Lund University.

Magnus Henrekson continued to work on issues of economic growth, industrial structure and employment creation. He completed the paper "Growth Effects of Government Expenditure and Taxation in Rich Countries" (with Stefan Fölster). During 1998–1999 he continued to work on the manuscript for his book *Small Business, Entrepreneurship and Economic Performance: Sweden and the United States in Comparison* (with Steven J. Davis). Together with Davis, he has also written a first draft of a paper entitled "Wage-Setting Institutions as Industrial Policy: Swedish Experience Seen from a U.S. Perspective". His Swedish publication dealing with the effect of labor taxation on the growth of the private service sector has stimulated a lively debate with other economists, both in *Arbetsmarknad & Arbetsliv* and *Ekonomisk Debatt*. Since the beginning of 1999, he has devoted a large part of his time to the project The Role of Universities for Innovative Activity and Economic Growth. This is a joint project with Professor Nathan Rosenberg from Stanford University.

Marie Hesselman joined IUI in December 1998 as a research assistant in the project Activities of Swedish Multinational Enterprises Abroad.

Helen Jakobsson, a Ph.D. student at Stockholm University, joined IUI in September 1998. She works with issues concerning economic integration within the European Union (EU). During 1998–1999 she has completed an article on the location of manufacturing production in the EU.

Ulf Jakobsson is the director of IUI and adjunct professor of Economics at the University of Umeå. He presently also serves as vice president of the Royal Academy of Engineering Sciences. Last year he headed the Economic Policy Group of SNS, which published the report *The Road to Prosperity* in January 1999. A theme of the report is the relation between regulation and consumer welfare in Sweden. Jakobsson also heads a research project on the causes of the high domestic price level in Sweden. Some of the results in this project were presented in the SNS report. An additional publication discussing the role of the

Swedish MNFs in the Swedish growth process will appear in a forthcoming book to be published by the Economic Council of Sweden. He has also participated in the Swedish public debate as a regular columnist on the editorial page in the Swedish newspaper *Dagens Nyheter*.

Eugenia Kazamaki Ottersten has continued her work on the TSER project New Skills and the Low Skilled and has attended a number of conferences during the year. She has also been in charge of a CEDEFOP project The Evaluation of Firm Trading. The results from this project were presented in February 1999 at a CEDEFOP conference in Brussels. Eugenia Kazamaki Ottersten has also continued her work in the Industrial Economic Council (Industrins Ekonomiska Råd). This work has resulted in an article that was published in *Ekonomisk Debatt*. In spring 1999 she has also had an article on labor market flexibility and legal institutions published in *Finnish Economic Papers*, and she contributed a chapter about labor market conditions within the EMU to the third volume of *Europaperspektiv 1999* (edited by U. Bernitz, S. Gustavsson and L. Oxelheim). As of April 1999 she is on temporary leave and is presently at the European Investment Bank in Luxembourg filling a post as a senior education economist at the projects directorate.

Assar Lindbeck has, during 1998–1999, written two papers together with Dennis Snower about reorganization of work within companies, such as teamwork and multi-tasking. Primarily, the effects on wage structure and wage formation have been studied. Jointly with Snower, Lindbeck has also published an article in the *American Economic Review* entitled “Price Dynamics and Production”. With Jörgen W. Weibull and Sten Nyberg he has published an article in the *Quarterly Journal of Economics* about the connection between social norms and economic incentives in the welfare state. Lindbeck has also published a number of other papers about the problems in the welfare state. With John Hassler he has worked on a theory for pension systems, especially considering the possibility of reducing the tax wedges in such systems.

Erik Mellander presented the paper “Omitted Variable Bias and Measurement Errors in Return to Schooling Estimates” at the Econometric Society European Meeting in Berlin, in August 1998. He participated at the conference Methodological Issues in Official Statistics organized by Statistics Sweden in Stockholm, in October 1998, where he presented “Sensitivity of Total Factor Productivity Indexes to Aggregation over Inputs: Evidence from the Swedish Manufacturing Sector 1985–95”, written jointly with Gudmundur Gunnarsson, Mälardalens University College. An abridged version of this paper will be published in a forthcoming proceedings volume. In November 1998, together with

Per Skedinger, he presented the paper “Corporate Job Ladders in Europe: Wage Premia for University vs. High School Level Positions” (forthcoming in *Swedish Economic Policy Review*) at the conference Can Education Foster Growth?, arranged by the Economic Council of Sweden. Joint work with Eugenia Kazamaki Ottersten and Thomas Lindh, “Evaluating Firm Training Effects on Performance and Labor Demand”, is forthcoming in *Applied Economics Letters*. Mellander is also affiliated with the Office of Labour Market Policy Evaluation (IFAU) in Uppsala, where he is involved in studies of labor demand and efficiency in Swedish employment offices. In October 1997, he presented the paper “Omitted Variable Bias and Measurement Error in Returns to Schooling Estimates” at a returns to education workshop in Amsterdam, organized by the University of Amsterdam and the Tinbergen Institute. Together with Gudmundur Gunnarsson, Mälardalens University College, he has recently embarked on a new project entitled Human Capital, Information Technology, and Productivity.

Pehr-Johan Norbäck started his employment at IUI in January 1999 and has been working on projects related to multinational firms. Together with Karl-Markus Modén, Karlstad University, he is examining how firms’ decisions in Research and Development are interacting with their choice of expanding sales abroad and with the mode in which markets abroad are served. He is also working with Lars Persson, IUI, on the project “Trade and Investment Liberalization and Privatization in an International Oligopoly”, which studies the interaction between incentives for acquisitions, greenfield investments and exports in developing international oligopoly industries. He also taught at Stockholm University and Gotland University College.

Lars Oxelheim has maintained his affiliation with IUI while holding a full-time professorship (chair) in International Business at Lund University. His current research is concerned mainly with the implications of macroeconomic disturbances for firm performance and issues related to economic and financial integration in general, with an EU focus in particular. Oxelheim is chair of the Swedish Network for European Studies in Economics and Business (www.snee.org). In that role he has edited (with Ulf Bernitz and Sverker Gustafsson) the network's annual publication, *Europaperspektiv 1999*, Nerenius & Santéus, Uppsala. He has also organized a conference in Mölle on *Economic Integration in Europe: Current Issues in Swedish Research*, aimed at taking an inventory of Swedish EU research. Oxelheim serves on the editorial board of *Journal of International Business Studies* and *Management International Review*.

Pavel Pelikan has continued his study of institutional change and flexibility of industrial organizations for the needs of policy analysis. First results of this analysis

have been presented in IUI WP 510. Pavel Pelikan was again invited to attend seminars on institutional and evolutionary economics at the University of Paris 1 – Sorbonne and at the University of Economics in Prague. In addition, he was invited to present his study of the origins of successful economic organizations at a workshop organized by the Max Planck Institute in Jena in July 1998 and at a symposium organized by the University of Brisbane in July 1999. The study was first presented at the 7th conference of the International J.A. Schumpeter Society in Vienna in June 1998. This study has been published as Working Paper No. 9805 by the Max Planck Institute and is intended to be a chapter in the book from the Brisbane Symposium.

Lars Persson has been involved in a project in the area of competition policy: understanding and evaluating cooperation between firms. He is currently working with Dan Kovenock, Purdue University, on the project Mergers and Entry, which studies the interaction between incentives for mergers and entry in oligopolistic industries. He is also working with Pehr-Johan Norbäck, IUI, on the project Trade and Investment Liberalization and Privatization in an International Oligopoly, which studies the interaction between incentives for acquisitions, greenfield investments and exports in developing international oligopoly industries. Lars Persson participated in conferences organized by EARIE, EEA, and ESEM. He gave talks at European University in Florence and at Purdue University.

Paul Segerstrom, a professor of economics at Michigan State University, spent this year visiting IUI. He continued his research on economic growth theory. He completed the paper “The Long-Run Growth Effects of R&D Subsidies”, which develops a new explanation for why research and development subsidies can either retard or promote economic growth, and the paper “The Growth and Welfare Effects of International Mass Migration” (with Per Lundborg), which studies the effects of labor migration from poor to rich countries. He also worked on the paper “Intel Economics”, which develops a new model to explain the behavior of firms such as Intel that aggressively invest in research and development activities to maintain their industry leadership positions and explores the welfare implications of this behavior. Segerstrom published three papers this year: “Endogenous Growth Without Scale Effects” in the *American Economic Review*, “R&D Subsidies and Economic Growth” (with Carl Davidson) in the *Rand Journal of Economics* and “The Dynamic Effects of Contingent Tariffs” (with Elias Dinopoulos) in the *Journal of International Economics*. In addition, his paper “A Schumpeterian Model of Protection and Relative Wages” is forthcoming in the *American Economic Review*, and his paper “The R&D Incentives of Industry Leaders” is forthcoming in the *International Economic*

Review. He gave seminars at IUI, the Stockholm School of Economics, the Economics Department at Stockholm University, the Institute for International Economics, Uppsala University, University of Helsinki, the Trade Union Institute for Economic Research (FIEF) and taught a two-week graduate course in microeconomic theory at the Helsinki School of Economics. Finally, he wrote a book review of *General Purpose Technologies and Economic Growth*, edited by Elhanan Helpman (1998, MIT Press), which will be published in the *Review of International Economics*.

Per Skedinger published "The Political Economy of Labour Market Reform" in *Swedish Economic Policy Review* (with Lars Calmfors) and "Transaction Taxes in a Search Model of the Housing Market" in *Journal of Urban Economics* (with Per Lundborg). He continued to serve as secretary of the Economic Council of Sweden at the Ministry of Finance and as editor of the *Swedish Economic Policy Review* until December. Since March, he has been affiliated with the Office for Labour Market Policy Evaluation (IFAU) in Uppsala. In April, Skedinger was faculty opponent to Christian Kjellström (Ph.D. thesis) at the Department of Economics, University of Stockholm.

Johan Stennek began work at IUI on February 1, 1999. He was recruited from the Institute for International Economic Studies (IIES) at Stockholm University. Stennek is currently doing research on mergers and acquisitions (with Sven-Olof Fridolfsson) and research on a theory of bilateral oligopoly (with Jonas Björnerstedt and Lars Persson). A preliminary report has been published under the title "Why Mergers Reduce Profits and Raise Share Prices" (IUI WP 511). Stennek teaches a course in Industrial Organization and Competition Policy in the Stockholm Doctoral Program in Economics (with Lars Persson). He is also supervising Sven-Olof Fridolfsson and Thomas Tangerås, two doctoral students at Stockholm University and the IUI (with Harry Flam). During 1998–1999, Stennek has been preparing a report for the European Commission concerning the costs and benefits of introducing a so-called efficiency defense in the EU merger regulation (with Lars-Hendrik Röller and Frank Verboven).

Roger Svensson has been involved in a project about consulting firms' foreign operations. Here, he has worked on a book and a two research papers. In connection with this project, a unique database on service exports has been created. A paper about the determinants when consulting firms tender for international projects was presented in a workshop in Bergen and in a conference in Mölle in 1999. Furthermore, an investigation about the Swedish pension system was published together with Per Thulin and Stefan Fölster, HUI.

Thomas Tangerås joined IUI in February 1999. During the academic year 1998–1999 he has been working on an essay called “Collusion-Proof Yardstick Competition”, which is to be included in his thesis. The paper examines firms' incentives to collectively reduce performance when they are regulated by means of yardstick competition, i.e., by relative performance evaluation. In particular, he investigates the regulator's optimal response to the threat of collusion. His findings suggest that collusion-proof regulation requires more extreme incentives than ordinary regulation: high- (low-) productivity firms produce more (less) efficiently than under regular yardstick competition. Tangerås attended the summer school at the University of Tel Aviv in July 1998, and he has also presented papers at the ESEM98 and EEA98 Meetings in Berlin. Furthermore, he has given seminars at NHH in Bergen, at the University at Uppsala, as well as at IIES and IUI in Stockholm.

Per Thulin's main responsibilities are the collection and statistical analysis of data. In 1998–1999, together with Stefan Fölster and Roger Svensson, he wrote a paper on the Swedish pension system and collaborated with Pontus Braunerhjelm on a paper about dynamic comparative advantages. The latter paper has been accepted for presentation at the EARIE conference in September 1999.

Jörgen Weibull has published the paper “Social Norms and Economic Incentives in the Welfare State”, written with Assar Lindbeck and Sten Nyberg, in the *Quarterly Journal of Economics*. He has done research in game theory and written the paper “Clever Agents in Young's Evolutionary Bargaining Model” (IUI WP 507) with Maria Saez-Marti, which has been accepted for publication in the *Journal of Economic Theory*; he has also written the paper “Evolution with Mutation Driven by Control Costs” (IUI WP 501) with Eric van Damme. Weibull has worked as associate editor for *Econometrica*. In the fall of 1998 he became a member of the Royal Swedish Academy of Sciences and was elected a member of the European Economic Council, beginning January 1999. Weibull has given seminars at the Norwegian School of Economics and Business Administration in Bergen, at the Charles University in Prague, at the London School of Economics and at Paris University X (Nanterre).

Conferences, Workshops and Courses

The Astra-Ericsson seminar series Human Capital and Economic Growth has now been offered for three years. In April 1999, a public seminar was conducted by Professor Horst Siebert, head of the Kiel Institute of World Economics, entitled How Can Europe Solve Its Unemployment Problem? His findings were reviewed by Anders Björklund, The Swedish Institute for Social Research at Stockholm University, and Hans Bergström, chief editor of *Dagens Nyheter*. Horst Siebert also gave an academic seminar where he presented a paper entitled "Locational Competition".

Other activities in the Astra-Ericsson seminar series encompass a mini course on personnel economics, held by professor Edward Lazear, Stanford University on September 8 and 9.

Similarly, Professor Seppo Honkapohja, University of Helsinki, gave a mini course on the theme Multiple Equilibria in Economic Development in mid-November 1998.

Current Research Programs

Program 1 Knowledge Accumulation, Human Capital and Economic Growth

- 1.1 Empirical Analyses of the Relations between Education, Training, Productivity and Wages
- 1.2 Economic and Industrial Structure in Europe: International Specialization and Adjustment
- 1.3 Institutions and Economic Performance

Program 2 Industrial Organization and International Specialization

- 2.1 Foreign Direct Investment (FDI), Industrial Organization and Trade Patterns
- 2.2 Competition Policy: Understanding and Evaluating Cooperation between Firms
- 2.3 Cross-Border Consulting Operations
- 2.4 Institutions and Industrial Dynamics: A Comparative Analysis of USA and Sweden
- 2.5 Industrial Policy, Small Business and Economic Performance: A Comparison of Sweden and the United States
- 2.6 The Swedish Price Level in an International Perspective

Program 3 Economics of the Welfare State

- 3.1 Welfare State Dynamics

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Program 3 Economics of the Welfare State

- 3.1 Welfare State Dynamics

1 Knowledge Accumulation, Human Capital and Economic Growth

Contemporary economic research has identified knowledge accumulation as the prime engine of growth. Growth is endogenized through investment in knowledge which, in contrast with other factors of production, is not subject to decreasing rates of return. Differences in the rate of knowledge investments have been offered as the main explanation for differences in growth performance on both the macro and the micro level. IUI's research in this area has been oriented toward microeconomic issues, particularly the role of education and the functioning of the labor market. To secure sustainable growth, it is necessary that the return on investments in education compensate for its costs. Similarly, without the right incentive structure within the economy, labor may not be optimally allocated from a social point of view. International differences in incentive structures may also induce labor to move between countries. Thus, a proper microeconomic setting is necessary for growth to materialize on the macro level.

1.1 Empirical Analyses of the Relations between Education, Training, Productivity and Wages

One purpose of this project is to compare the returns to education and wage levels across countries. Another issue, which also involves international comparison, concerns the relation between education and labor demand. The interaction between human capital and information technology is also analyzed, using data from the Swedish manufacturing sector. Because skills can be upgraded through training outside the regular educational system, the effects of firm-financed training on firms' productivity and costs are also analyzed.

Responsible for the project: Eugenia Kazamaki Ottersten, Erik Mellander and Per Skedinger

Participating researchers: Erika Ekström and Ola Ghatnekar

1.2 Economic and Industrial Structure in Europe: International Specialization and Adjustment

This project also involves researchers from the Trade Union Institute for Economic Research (FIEF) and Lund University. The research undertaken at IUI focuses on technological progress, growth, structural adjustment and the demand for human capital.

Responsible for the project: Magnus Henrekson

1.3 Institutions and Economic Performance

The project has focused upon three little-examined questions of institutional economics: (1) How do institutions affect the selection and use of scarce economic abilities (unequally bounded rationality)? (2) How do they affect the forming and reforming of economic organizations? (3) How, and under which constraints, can they be changed by deliberate public policy? These questions are complementary to (and for policy applications, no less important than) the usually studied questions of how institutions affect incentives and transaction costs and how policies influence the working of given organizations. Interesting results began to appear from analysis of the selection of entrepreneurs (IUI WP 510) and from analysis of the information balances of organizing processes (The Max Planck Institute, Evolutionary Economic Unit WP 9805). Therefore, the two directions of analysis will be examined further, with the intention of combining them in a book on policies for evolving economies with unequally able agents.

Responsible for the project: Pavel Pelikan

2 Industrial Organization and International Specialization

Throughout IUI's history, this research program has been of central importance. Since the 1960s the Institute has undertaken comprehensive studies of Swedish multinational firms (MNFs) and their influence on the Swedish economy. The emphasis of the study has been on the location of production across countries and its implications for the pattern of specialization and trade in the Swedish manufacturing sector. Research in this area emanates from a detailed questionnaire sent out approximately every fourth year to all Swedish MNFs. This database was updated in 1995.

2.1 Foreign Direct Investment (FDI), Industrial Organization and Trade Patterns

IUI's unique database on MNFs will be pooled with country data to analyze the factors that attract FDI and the implications of FDI for small, open economies' specialization in manufacturing and trade. Can changes over time be related to shifts in FDI flows, and what are the driving forces behind FDI? Are corporate headquarters likely to become more footloose? What impact does a high degree of internationalization have on wages and the demand for labor? How is the process of transferring technology within MNFs organized, and can the impact of such transfer on productivity be measured? How do MNFs facilitate the transfer of technology and growth? Recent theoretical contributions in trade, location and growth will be combined with the theory of the firm in the analyses.

Responsible for the project: Pontus Braunerhjelm and Karolina Ekholm

Participating researchers: Henrik Braconier, Mattias Ganslandt, Helen Jakobsson, Roger Svensson and Per Thulin

2.2 Competition Policy: Understanding and Evaluating Cooperation between Firms

In a well-functioning market economy, firms both compete and cooperate. Cooperation can take many different forms, from mergers to joint ventures to looser forms of cooperation. Cooperation concerns a wide variety of areas, such as adoption of common standards, joint research and development and shared use of common resources. Such forms of cooperation may be part of the competitive process that brings benefits to the consumers: they may reduce the cost of product development and hence speed the development of new and better products, or they may enhance inter-operability. However, collaboration among competitors can also be detrimental to competition. The prime examples of these detrimental factors are price fixing and sales volume targeting. Other, less obvious examples include agreements between large producers and local distributors that facilitate the introduction of products into new markets. The problem is that such agreements can also be used to exclude other entrants that would intensify competition and put downward pressure on prices. To separate socially beneficial cooperation from harmful cooperation and to design appropriate policy measures, we need to understand both the driving forces behind firms' collaboration and the consequences for social welfare.

Responsible for the project: Lars Persson and Johan Stennek

Participating researchers: Jonas Björnerstedt, Prof. Dan Covenock, Sven-Olof Fridolfsson and Maria Saez-Marti

2.3 Cross-Border Consulting Operations

More than 95% of all studies about international trade and FDI have focused on MNEs in the manufacturing sector. Few studies have examined the service sectors. In this project we concentrate on consulting firms (CFs) that export services based on human capital and know-how. Such an export is often closely connected to investment in, and restructuring of, infrastructure plants and systems, e.g., telecommunication systems, power and water supply plants, roads and railways. In contrast to manufacturing firms, CFs direct around 90% of their exports to developing countries and Eastern Europe, and they seldom establish foreign affiliates. CFs are relatively small, but they play an important role with respect to knowledge transfer. A unique database on Swedish CFs' individual tender documents submitted abroad is used here to analyze the following issues: (1) comparison between strategies and outcome when competing for foreign assignments; (2) Sweden's comparative advantages in the consulting sectors; (3) the extent and direction of knowledge transfer.

Responsible for the project: Roger Svensson

2.4 Institutions and Industrial Dynamics: A Comparative Analysis of USA and Sweden

The role of institutions in promoting growth and encouraging industrial dynamics has emerged as an important area of economic research. This project aims at analyzing industrial dynamics in two countries characterized by substantial differences in their institutional settings, namely Sweden and the United States (here represented by the state of Ohio). The evolution and average size of establishments and the development of employment, the role and prevalence of clusters, the link between financial markets and product markets, and the forces behind the diffusion of and demand for new technology, are analyzed in the project.

Responsible for the project: Pontus Braunerhjelm and Prof. Bo Carlsson

**2.5 Industrial Policy, Small Business and Economic Performance:
A Comparison of Sweden and the United States**

The purpose of this project is to assess whether differences in key institutions and rules of the game can explain variations in growth, employment creation, and industrial and size distribution of employment across countries. Hypotheses are tested by a detailed analysis of institutions and rules of the game in Sweden and the United States, and, in a second step, by an assessment of whether the detected institutional differences are consistent with observed differences in economic outcomes such as growth, employment creation, and industrial distribution of employment.

Responsible for the project: Prof. Steven J. Davis and Magnus Henrekson

2.6 The Swedish Price Level in an International Perspective

During the last couple of decades, Sweden has consistently had one of the highest internal price levels in the OECD area. The pattern of high domestic prices fits well into the traditional Swedish model where the economy can be divided into a competitive and a sheltered sector. The exchange rate is determined mainly by the cost effectiveness in the competitive sector, whereas regulations and a lack of competitiveness in the sheltered sector yield a domestic price level that is high, relative to that in the competitive sector.

In theory, a large difference in effectiveness between the sheltered and the competitive sectors in a country can be expected to give the country a relatively high domestic price level in an international comparison. The two extremes here are Japan and the United States. Japan has a very effective and competitive industrial sector, whereas its domestic market is characterized by regulations and inefficiencies. Japan also has the highest domestic price level among the large industrialized countries. On the other hand, in the United States there is little difference in market structure and efficiency between the international and the domestic sector. The domestic price level is also the lowest among the large industrialized countries. Sweden is found somewhere between these two extremes.

The aim of this project is to investigate further the factors explaining the high Swedish price level. One part of the project investigates the differences in price level between very large groups of countries to find common patterns of explanations to the different price levels. The other part of the investigation consists of a more detailed study of differences in price levels on selected markets between Japan, the United States and Sweden.

Responsible for the project: Prof. Ulf Jakobsson and Prof. Bo Carlsson

Participating researcher: Erika Ekström

3 Economics of the Welfare State

Analysis of the welfare state has mainly been considered problems of a static nature. The overall purpose of this research program at the Institute is to study the welfare state from an evolutionary point of view. How does the design of welfare systems influence the incentive structure and thereby the behavior of economic agents? In addition, issues such as capital accumulation in the welfare state and the role of institutions in economic performance will be considered.

3.1 Welfare State Dynamics

This project aims to investigate the dynamic effects of welfare state policy on individual behavior in the long run. Particular attention is directed toward the interaction between social norms and incentives and their economic implications. The theories that are developed will be related to empirical data for Sweden and the other Nordic countries. Another part of the project aims to analyze the links between income distribution, employment, and growth in the welfare state. So far, the work has resulted in a number of articles. The next goal is to bring the results together in a book on the dynamics of the welfare state.

Responsible for the project: Prof. Assar Lindbeck

Publications

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53. *The Number and Size Distribution of Firms in Sweden and Other European Countries*. Licentiate Dissertation in Economics. Dan Johansson. 1997. 60 pp. (Published as IUI Working Paper No 483.)
52. *R&D and Technology Transfer by Multinational Enterprises*. Gunnar Fors. 1996. 98 pp.
51. *Foreign Activities of Swedish Multinational Corporations*. Roger Svensson. 1996. 176 pp.
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- 514. *The Auctioning of a Failing Firm.* Lars Persson
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465. *A Unified Treatment of Horizontal Direct Investment, Vertical Direct Investment, and the Pattern of Trade in Goods and Services*. James R. Markusen, Anthony J. Venables, Denise Eby Konan and Kevin H. Zhang
464. *Multinationals without Advantages*. Massimo Motta
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462. *Swedish Multinational Corporations: Recent Trends in Foreign Activities*
Pontus Braunerhjelm, Karolina Ekholm, Lennart Grundberg and Patrik Karpaty
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458. *Overseas R&D by Multinationals in Foreign Centers of Excellence.*
Gunnar Fors and Mario Zejan
457. *R&D and Foreign Sales in Multinationals: A Simultaneous Relationship?*
Gunnar Fors and Roger Svensson
456. *Technology Transfer to Foreign Affiliates by Multinational Enterprises.*
Gunnar Fors
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454. *Social Insurance Based on Personal Savings Accounts: A Possible Reform Strategy for Overburdened Welfare States?* Stefan Fölster
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449. *Incentives in the Welfare State Lessons for would-be welfare states.* Assar Lindbeck

Seminars

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Monday 14 June

Charles Noussair, Purdue University: *Non-Speculative Bubbles in Experimental Asset Markets: Lack of Common Knowledge of Rationality vs. Actual Irrationality*

Co- authors: Vivian Lei and Charles R. Plott

Monday 7 June

Thomas Tangerås, The Institute for International Economic Studies and IUI: *Collusion-Proof Yardstick Competition*

Monday 31 May

Erik Mellander, IUI: *The Multi-Dimensional Nature of Labor Demand and Skill-Biased Technical Change*

Monday 17 May

Lena Edlund, Stockholm School of Economics: *Custodial Rights and the Rise in Out-of-Wedlock Fertility*

Tuesday 11 May

Rune Stenbacka, Swedish School of Economics and Business Administration, Helsinki: *Lending Market Structure and Monitoring Incentives*

Co-author: Vesa Kanninen

Monday 10 May

Ignatius J. Horstmann, The University of Western Ontario and University of Toronto: *Factor Price Differences and Foreign Outsourcing*

Co-author: Daniel R. Vincent

Wednesday 5 May

Morten Hviid, University of Warwick: *On the Incidence and Variety of Low-Price Guarantees*

Co-author: Maria Arbatskaya

Monday 3 May

Dieter M. Urban, Copenhagen Business School: *Understanding Increasing Returns to Scale and Economic Geography*

Monday 26 April

Per Pettersson, The Institute for International Economic Studies: *An Empirical Investigation of the Strategic Use of Debt*

Friday 23 April

Horst Siebert, Kiel Institute of World Economics: *Locational Competition*

Monday 12 April

Erik Norrman, Lund University: *Portfolio Choice, Taxation and the Allocation of Capital between Large and Small Firms – A General Equilibrium Model with Financial Behavior*

Monday 29 March

Paul Segerstrom, IUI and Michigan State University: *The Long-Run Growth Effects of R&D Subsidies*

Monday 22 March

Emin M. Dinlersoz, University of Rochester: *Agglomeration and Establishment Size in U.S. Manufacturing*

Monday 15 March

Shanto Ghosh, Boston University: *Technology Licensing to Developing Countries: Theory and Evidence*

Monday 8 March

Gary W. Anderson, Jr., University of Maryland at College Park: *Multinational Corporations and Developing Countries: Entry Mode, Technology Transfer, and Performance Requirements*

Monday 22 February

Edvard Johansson, Swedish School of Economics and Business Administration, Helsinki: *Does a Severe Recession Increase or Decrease Self-Employment Duration?*

Monday 15 February

Björn Isakson, Dalarna University College and Uppsala University:
Local Loop Interconnection Charges, Reciprocity and Enhanced Services

Friday 12 February

Philip Vermeulen, Stanford University: *Detecting the Influence of
Financing Constraints on Fixed Investment*

Monday 8 February

Paul Segerstrom, IUI and Michigan State University: *Endogenous
Growth without Scale Effects*

Monday 1 February

Tomas Forsfält, Stockholm University: *Time Effects of Age and Risk
Aversion on Investments in Small Firms*

Monday 25 January

Pehr-Johan Norbäck, IUI: *Multinational Firms, Technology and Location*

Monday 18 January

Bengt Holmström, Massachusetts Institute of Technology and Stockholm
School of Economics: *M&A and Corporate Restructuring*

Monday 11 January

Pavel Pelikan, IUI: *Institutions for the Selection of Entrepreneurs:
Implications for Economic Growth and Financial Crises*

1998**Monday 14 December**

Eva Meyerson, Stockholm University and W. Haas School of Business,
University of California at Berkeley: *Utfallsrelaterad lön, risk och
produktivitet. Om lönesystem i den privata sektorn i Sverige, 1970–1990.*
Co-author: Trond Petersen

Monday 7 December

Mikael Lindahl, Stockholm University: *Education for Growth: Why and for Whom?*

Co-author: Alan B. Kreuger

Monday 30 November

Maria Saez-Marti, Stockholm School of Economics, and Jörgen W. Weibull, Stockholm School of Economics and IUI: *Evolution and Bounded Rationality in Games*

Monday 23 November

Anne-Marie Pålsson, Lund University: *Taxation, Efficiency and Time Allocation*

Monday 16 November

Michael Lundholm, Stockholm University: *Social Norms and Moral Hazard*

Co-author: Martin Dufwenberg

Monday 9 November

Seppo Honkapohja, University of Helsinki: *The Economic Crises of the 1990's in Finland*

Co-author: Erkki Koskela

Monday 2 November

Marcus Asplund, IUI and Stockholm School of Economics: *The Size Distribution of Firms; A Note*

Monday 26 October

Fredrik Bergström, Stockholm School of Economics: *Regional Policy and Convergence of Real Per Capita Income among Swedish Counties*

Monday 12 October

Mattias Ganslandt, IUI: *Welfare Effects of Arbitrage in International Trade*

Monday 5 October

Karolina Ekholm, IUI, and Rikard Forslid, Lund University: *Trade and Location with Vertically and Horizontally Integrated Firms*

Monday 28 September

Roger Svensson, IUI: *Exporting Consultancy Services in the Infrastructure Sectors: The Determinants of Obtaining Assignments*

Monday 21 September

Stefan Fölster, HUI, and Magnus Henrekson, IUI: *Growth Effects of Government Expenditure and Taxation in Rich Countries*

Monday 14 September

John S. Earle, The Stockholm Institute of Transition Economics and East European Economies (SITE): *Understanding Wage Arrears in Russia*
Co-author: Klara Z. Sabirianova

Monday 7 September

Edward P. Lazear, Stanford University: *Globalization and the Market for Teammates*

Monday 24 August

Dan Kovenock, Purdue University: *Strategic Investment in Just-in-Time-Manufacturing*
Co-authors: Maqbool Dada and Nerses Kazarian