Universität Basel

Wirtschaftswissenschaftliche Fakultät

WWZ*newsletter* 02'2015

Aktuelle Informationen aus dem Wirtschaftswissenschaftlichen Zentrum der Universität Basel

1. Personelles

Neue Angehörige der Wirtschaftswissenschaftlichen Fakultät:

Prof. Dr. Andrea Schenker-Wicki	Professur Performance Management und Rektorin der Universität Basel (per 01.08.2015)
Stephanie Armbruster	Öffentliche Finanzen
Aurelio Perruca	Rechnungslegung

Die Universität Basel hat **Ulrich Matter**, Assistent Politische Ökonomie, im Rahmen der Ausschreibung "Forschungsfonds 2015/Förderung exzellenter Nachwuchswissenschaftler" einen Förderbeitrag in der Höhe von rund CHF 73'000.- zugesprochen. Das Fördergeld dient der Anschubfinanzierung des Forschungsprojektes "Uncovering Vote Trading Through Networks and Computation", welches in enger Zusammenarbeit mit Dr. Omar Guerrero (CABDyN Complexity Centre, University of Oxford) entstanden ist.

Kristyna Ters, Assistentin an der Professur für Finanzmarkttheorie, hat mit ihrem Projekt "Euro area sovereign credit risk contagion: Evidence from intraday data // Intraday credit risk responses to ECB announcements during the euro area sovereign debt crisis" die Jury des Schweizerischen Nationalfonds (SNF) überzeugt: Mit dem 01.07.2015 wurde ihr ein Post Doctoral Researcher Career Grant (MHV) für zwei Jahre gesprochen.

Auf Antrag von Prof. Dr. Dietmar Maringer (Computational Economics and Finance) hat der Fakultätsausschuss beschlossen, Herrn **Dr. Tikesh Ramtohul** den Status eines *Research Fellows* zuzusprechen. Herr Dr. Ramtohul promovierte 2011 mit einer Dissertation mit dem Titel „Computational Intelligence Applications in Financial Modelling" an der Wirtschaftswissenschaftlichen Fakultät, für die er im gleichen Jahr mit dem Fakultätspreis ausgezeichnet wurde.

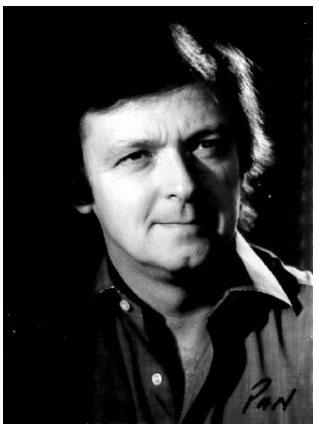
2. Gastbeitrag von Rolf Weder: Happy Birthday!

50th Anniversary of "The Structure of Simple General Equilibrium Models", *Journal of Political Economy*, Vol. 73, No. 6, 1965, pp. 557-572

We all have birthdays. However, only a few contributions in science reach a certain level of

importance such that, *ex post*, we believe their year of birth should be celebrated. This is particularly the case for those papers (or books) that fundamentally changed the way we look at or do things and which have had a great influence on research, allowing many in a field to forge ahead and to explore new ground. The paper "The Structure of Simple General Equilibrium Models", written by Professor Ronald W. Jones from the University of Rochester and published in the *JPE* in 1965 certainly is an example that fits the requirement.

When Ronald Jones became a "Distinguished Fellow" of the American Economic Association in 2009, his work was commended as follows: "Few papers have had as much influence on a field as Jones' classic exposition of the structure of simple general equilibrium models." (AER, Vol. 100, No. 3, June, 2010). In his graduate textbook in *Advanced International Trade* (Princeton University Press, 2004), Robert C. Feenstra refers to the "Jones' algebra" when explaining how the main results of the neoclassical trade theories are derived.



And a well-known Canadian Professor at Simon Fraser University and colleague of mine made the following comment on Ronald Jones' achievements one evening at the meetings of the Canadian Economic Association last year: "Ron became a rockstar when this paper came out."

All graduate students and trade economists wanted to meet him. The paper changed the way economists thought about general equilibrium models, in general, and trade theory, in particular.

1. The Core of the Paper and its Implications

It is the paper that – as we would say today -- introduced the basis for the widely used "hat notation" (e.g., $\widehat{w} = \frac{dw}{w}$ for relative changes in the wage rate) in "simple general equilibrium models" to study comparative statics. Ronald Jones discovered a fundamental way to simplify these models. Take the example of the 2x2x2 neoclassical trade model with perfect competition (2 goods, 2 countries, 2 factors of production). At the time, economists typically had to solve a system of 8 equations in order to determine the two commodity outputs, the four factor allocations to each industry and the two factor prices (given the technology and prices of the two goods). Instead of pursuing the well-established route to have two equations for the production functions and four equations (requiring that the value of the marginal product of each factor equals the factor price) to determine equilibrium factor prices, Jones reformulated the model as "suggested by activity analysis" (p. 558). He described the technology by the so-called factor coefficients (a_{ij}), each a function of the two factor prices, which allowed him to represent the price of each good as a weighted average of the factor prices.

As a result, the 2x2x2 model could be captured by four (instead of eight) equations: two requiring that both factors are fully employed (the full-employment conditions) and two relating market price to unit cost (the zero-profit conditions). Comparative statics results then follow by totally differentiating the equations. However, ingenious transformations of these equations are necessary. First, the total differentials are transformed to represent relative

changes. Second, the equations are, after applying the envelope theorem, extended to include (1) the so-called distributive shares or thetas ($\theta_{Li} = \frac{wa_{Li}}{p_i}$ for labour in industry *i*), reflecting the share of each factor of the unit cost (for the two zero-profit conditions), and (2) the so-called fractions or lambdas ($\lambda_{Li} = \frac{L_i}{L}$ for industry *i*), reflecting the share of an economy's factor in each industry (for the two full-employment conditions). ["Query: Are the factor coefficients constant? Answer: No, but the sum of the change in the costs of each factor in production due to a change in relative factor price equals zero."] This transformation leads to the well-known two "Jonesian" equations that capture the intuitive relationship between relative changes in the prices of the two goods (p_1 and p_2) and the relative changes in the two factor prices (*w* for labour and *r* for capital):

$$\hat{p}_1 = \theta_{L1}\hat{w} + \theta_{K1}\hat{r}$$
$$\hat{p}_2 = \theta_{L2}\hat{w} + \theta_{K2}\hat{r}.$$

Solving this system of equations (e.g., by writing it in matrix form and inverting the 2x2 matrix of the thetas), leads to the famous "magnification effect" derived in the paper (pp. 561-562): With different factor-intensities, any change in the price of a good has a magnified effect on factor prices. If, for example, industry 1 uses relatively more labour than industry 2, an increase in the relative price of good 1 implies the following relative changes in prices:

$$\hat{w} > \hat{p}_1 > \hat{p}_2 > \hat{r}.$$

Of course, this implies strong distributional effects as the real wage rises and the real return on capital falls. In the original paper, Professor Jones also discusses the magnification effect associated with a relative change in the factor endowments, in subsidies and in taxes, using the same methodology. In the second part of the paper, the model is extended by making demand and thus prices of the goods endogenous. Moreover, aspects of economic growth, savings behaviour as well as technological change are introduced, illustrating the great benefit of using the pioneered methodology.

Building on these insights, Ronald Jones applied this methodology to his specific factors model (another invention of his), to the so-called "hinterland" effects, to his idea that all international trade takes place in form of "middle" products, to non-traded goods, vertically related industries, and more. The AEA stated in its laudation: "Extensions to incorporate more goods, non-traded goods, distorted factor markets, variable factor supplies, and variable returns to scale (to name a few) were readily accomplished. (…). With characteristic elegance and clarity, Jones explored the implications of international factor mobility, trade in products that require further value added – processing, packaging, or distribution – in their final destination, and fragmentation of the production process."

2. How Could it be Done?

For sure, it needs a great mind. Ron Jones' reply to my question a year ago about his research went in a different direction:[1] "I think I have a comparative advantage: I know if I do not know." And commenting on his research, in general, he said: "Trying to make things more simple has always been a driving force of what I have been doing." In a recent email-conversation we had, Professor Jones explained to me that one of the reasons why he tried to find an easier way of looking at trade theory at the time was the following: "Lionel McKenzie [a colleague at Rochester] had urged me to explain general equilibrium theory to our new recruit, Robert Fogel, who wanted to use some of the GE stuff for economic history." And he continued: "The objective was to make things much more simple than the way others presented it, so that I personally (and hopefully Bob Fogel and others) could get a better understanding." He adds: "The alternative of having to solve an 8-equation model did not seem easy to me. I did not know anybody who had inverted an 8x8 matrix."

I believe there is one very important additional ingredient that is responsible for such a breakthrough. It is something which I noticed, having been lucky to take Ron Jones' graduate course in international trade at Simon Fraser University, to attend a number of his

[1] See WWZ*newsletter* 02/2014.

presentations and to spend many hours of conversations about trade theory: it is his passion and his love for the subject -- for international trade theory and for economics, in general; and the eagerness to explain complicated things to anybody who is interested despite of the person's background and capabilities. We all can only learn from this.

Many years ago, when Ron Jones gave three of his papers in one day at a seminar with students from Basel near St. Moritz, we arrived in the Engadin on a Sunday and wanted to show Ron some tourist features. So, we were walking towards the Morteratsch Glacier on a beautiful Sunday afternoon. As soon as we started the walk—we were still far away from the glacier—Ron was looking for something more: "Rolf: Suppose two countries, one relatively well endowed with capital…". -- I love it. This is what research, teaching, science and our fascinating field of economics (and most of all international trade theory) is all about.

Congratulations to Professor Ronald W. Jones on the 50th Anniversary of his ground-breaking paper "The Structure of Simple General Equilibrium Models" (JPE, 1965), and all the insights that were and still are derived from it. And let me thank Ron personally for coming regularly to Basel and giving all of us (students, PhDs and faculties), who are interested in trade theory, an extraordinary opportunity to think hard and, at the same time, enjoy the discussion.[2]

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THE STRUCTURE OF SIMPLE GENERAL EQUILIBRIUM MODELS[1]

RONALD W. JONES
University of Rochester

I. INTRODUCTION

IT IS difficult to find any major branch of applied economics that has not made some use of the simple general equilibrium model of production. For years this model has served as the workhorse for most of the developments in the pure theory of international trade. It has been used to study the effects of taxation on the distribution of income and the impact of technological change on the composition of outputs and the structure of prices. Perhaps the most prominent of its recent uses is to be found in the neoclassical theory of economic growth.

Such intensive use of the simple two-sector model of production suggests that a few properties are being retranslated in such diverse areas as public finance, international trade, and economic growth. The unity provided by a common theoretical structure is further emphasized by the dual relationship that exists between its two counterparts in the dual problems discussed in the earlier part of the paper.

II. THE MODEL

Assume a perfectly competitive economy in which firms (indefinite in number) maximize profits, which are driven to the zero level in equilibrium. Consistent with this, technology in each of two sectors exhibits constant returns to scale. Two primary factors, labor (L) and land (T), are used in producing two distinct commodities, manufactured goods (M) and food (F). Wages (w) and rents (r) denote the returns earned by the factors for use of services, whereas p_M and p_F denote the competitive market prices of the two commodities.

If technology is given and factor endowments and commodity prices are treated as parameters, the model serves to determine eight unknowns: the level

$$a_{LM}M + a_{LF}F = L, \quad (1)$$
$$a_{TM}M + a_{TF}F = T, \quad (2)$$
$$a_{LM}w + a_{TM}r = p_M, \quad (3)$$
$$a_{LF}w + a_{TF}r = p_F, \quad (4)$$

tion serves to emphasize the dual relationship between factor endowments and commodity outputs on the one hand

[1] I am indebted to the National Science Foundation for support of this research in 1962–64. I have benefited from discussions with Hugh Rose, Robert Fogel, Rudolph Penner, and Emmanuel Drandakis. My greatest debt is to Akihiro Amano, whose dissertation, *Neo-Classical Models of International Trade and Economic Growth* (Rochester, N.Y.: University of Rochester, 1963), was a stimulus to my own work.

[2] As an example in each field see Murray C. Kemp, *The Pure Theory of International Trade* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), pp. 10–11; and J. E. Meade, *A Neo-Classical Theory of Economic Growth* (London: Allen & Unwin, 1961), pp. 84–86.

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[2] With special thanks to Brenn Jones for providing pictures.

Prof. Dr. Rolf Weder is Professor of International Trade and European Integration at the University of Basel. In 2007, he initiated the Guestprofessorship in Globalization (Gastprofessur ‹‹Globalisierung – Internationalisierung der Wirtschaft.››). From 1991 to 1993 he was a Postdoc and Sessional Instructor at Simon Fraser University and, from 1996 to 1998, a Visiting Associate Professor at the Department of Economics of the University of British Columbia, Vancouver, Canada.

Prof. Dr. Ronald Jones is Xerox Professor of Economics at the University of Rochester. His field is international economics and most of his research has been on the pure theory of international trade. Early papers have tended to concentrate on developing a set of small-scale competitive trade models in a general equilibrium context. More recently attention has shifted to trade theory in which some inputs into the production process, or primary factors such as labor, are traded or mobile in world markets. His book for M.I.T. Press, Globalization and the Theory of Input Trade, (2000), summarizes much of this work, including a discussion of the tendency recently in world markets for firms to outsource fragments of the production process to other parts of the globe where factor prices (especially wage rates) give a better match with input requirements. He is joint author of a textbook in the international area, World Trade and Payments, (joint with Richard E. Caves and Jeffrey A. Frankel), (Addison Wesley), now in its 10th edition. http://www.econ.rochester.edu/people/jones/jones.htm

3. Save the date

Do, 01. Oktober 2015, 18:15 Uhr	**Bernoulli Lecture: Prof. Dr. Ulrike M. Malmendier, University of California, Berkeley** **Ort:** Bernoullianum, Hörsaal, Klingelbergstrasse 16, Basel

4. Publikationen

Politische Ökonomie

Matter, Ulrich and Alois Stutzer (2015). Politico-Economic Determinants of Tort Reforms in Medical Malpractice. WWZ Discussion Paper 2015/02.

Mikroökonomische Theorie

Häfner, Samuel: Stable Biased Sampling, WWZ Discussion Paper 2015/03.

Häfner, Samuel: A Tug of War Team Contest, WWZ Discussion Paper 2015/04.

Nöldeke, Georg and Larry Samuelson: The Implementation Duality, WWZ Discussion Paper 2015/01.

Stiftungswesen

Von Schnurbein, G./ Fritz, T./ Mani, S.: Social Impact Bond, CEPS Forschung und Praxis Bd. 13, Basel: CEPS, 2015.

5. Miscellaneous

UB Wirtschaft

E-books

Jetzt sind sie da! Wie im letzten Newsletter angekündigt, wurde das Angebot an E-Books stark vergrössert: Im Rechnernetz der Universität Basel sind 700'000 E-Books verfügbar. Drei umfangreiche Pakete werden neu angeboten, von denen vor allem zwei für die Wirtschaftswissenschaften interessant sind. Sozial- und wirtschaftswissenschaftliche Bücher, sowie philosophische Werke von verschiedenen Verlagen (u.a. Oxford University Press, Cambridge University Press, Sage, Wiley, Physica-Verlag), über 8'000 Titel De Gruyter Geistes- und Sozialwissenschaften, über 25'000 Titel History Collection von EBSCO, über 9'000 Titel. Diese E-Books stehen zunächst ein Jahr lang über den Katalog swissbib Basel Bern zur Verfügung, ein Teil davon dauerhaft. Welche E-Books dies sein werden, wird u.a. auf Grund der Benutzung entschieden.

Dynamische Suchoberfläche für die Informationsrecherche

Die Suchoberfläche der Bibliothek - genannt swissbib Basel Bern - (Link: http://baselbern.swissbib.ch/) passt sich ab sofort der Bildschirmgrösse diverser Endgeräte dynamisch an. Sie kann damit ohne Einschränkungen auf dem Smartphone, dem Tablet oder dem PC genutzt werden. Neben dem *Responsive Design* bietet swissbib Basel Bern folgende Neuerungen: Bei jedem Titel kann man sich unter "Ähnliche Einträge" thematisch ähnliche Titel anzeigen lassen. Passwortänderungen für das IDS-Konto können mit wenigen Klicks direkt in swissbib Basel Bern vorgenommen werden. Neu gestaltete Symbole für Medientypen (bei Titeln ohne Coverbild) und neu gestaltete Icons.

Ein Fest markierte das Ende des 15. Jahrgang des MAS Marketing Management

Am 29. Mai 2015 konnte Prof. Manfred Bruhn im Zunftsaal der Schlüsselzunft den 22 Absolventinnen und Absolventen des 15. MAS Marketing Management die Diplomurkunde zum *Master of Advanced Studies in Marketing Management* überreichen. Es war der Schlusspunkt eines abwechslungsreichen, vielfältigen und anspruchsvollen Studiums, das durch hohen persönlichen Einsatz der Teilnehmenden wie auch der Dozierenden gekennzeichnet war. Nicht umsonst zählt das MAS Marketing Management zu den führenden MBA-Programmen mit Schwerpunkt Marketing im deutschsprachigen Raum.

Die Freude und Erleichterung über den erfolgreichen Abschluss war spürbar, denn das MAS beanspruchte in den 16 Monaten Dauer 70 Präsenztage und einen erheblichen Zusatzaufwand an privater Zeit für Vor- und Nachbereitung, Klausurvorbereitung und die Diplomarbeit – und das neben voller Berufstätigkeit sowie familiärer Verpflichtungen.

Trotz aller Freude schwang auch ein Tropfen Wehmut mit, denn auch dieser Lehrgang wuchs zu einer Gemeinschaft zusammen, die sich persönlich schätzte, voneinander lernte und eine Kultur entwickelte, in der Spass und Geselligkeit nicht zu kurz kamen. Nach dem MAS ist vor dem MAS: Seit Ende Januar 2015 läuft der 16. Jahrgang und die 17. Ausgabe ist mit erfreulicher Resonanz bei den Interessenten bereits in Arbeit.

Die Wirtschaftswissenschaftliche Fakultät der Universität Basel und die Dozentinnen und Dozenten des MAS Marketing Management gratulieren zum erfolgreichen Abschluss!

Absolventinnen und Absolventen des MAS Marketing Management 2014/2015 der Universität Basel:
Barth Daniela, Specialist Marketing Communication, Sunrise Communications AG; **Bundschuh** Thomas, Leiter Marketing, Industrielle Werke Basel IWB; **Eggmann** Miriam, Corporate Communications , KPT/ CPT Health Insurance; **Eichenberger** Janine, Projektleiterin / Beraterin, Rosenstar GmbH; **Fischlin** Melanie, Senior Marketing Specialist, Franz Carl Weber; **Helg** Roger, Projektleiter Market & Sales Management, Credit Suisse; **Hurni** Ronen, Product Manager Projekte Markt, Endress + Hauser Flowtec AG; **Jakob** Corinne, Partner Marketing Specialist, Samsung Electronics Switzerland GmbH; **Lienhard** Nadine, Senior Key Account Manager, Rivella AG; **Loetscher** Andrea, Solistin, Produzentin, Selbständig | Aplus; **Logo** Patrick, Product Manager, Ricola AG; **Melileo** Davide, Key Account Manager, AMAG Retail; **Müller** Barbara, Marketing Manager, DIA Europe Middle East Africa; **Raouzeos** Emanuel, Account Manager, Endress+Hauser Flowtec AG; **Rechner** Julia, Projektleiterin Marketing, Industrielle Werke Basel IWB; **Schmid** Philipp, Exhibition Director, MCH Messe Schweiz (Basel) AG; **Soukup** Liliane, Leiterin Marketing/ Unternehmensentwicklung, Hint AG; **Studerus** Philipp, Leiter Qualitätsmanagement/ Logistiksupport, Möbel Pfister AG; **Traber** Matthias, Anwaltssubstitut, Baumgardt Petrik Rechtsanwälte & Notariat; **Trefz** Andreas, Leiter Marketing - Bauhandwerk, Montagetechnik Berner AG; **Waelti** Christine, Manager Marketing & Communications, Basel Tourismus.

Editorial
WWZnewsletter werden von der Wirtschaftswissenschaftlichen Fakultät der Universität Basel herausgegeben.
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