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*Citation for published version (APA):*

Makarewicz, T. A. (2014). Learning to forecast: Genetic algorithms and experiments Amsterdam: Tinbergen Institute

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Tomasz Aleksander Makarewicz

# Learning to Forecast: Genetic Algorithms and Experiments

The central question that this thesis addresses is how economic agents learn to form price expectations, which are a crucial element of macroeconomic and financial models. The thesis applies a Genetic Algorithms model of learning to previous laboratory experiments, explaining the observed heterogeneity of individual forecasting behavior. It also studies the effect of information networks in this model, showing that information sharing may lead to more volatile price dynamics. Finally, the thesis reports on an experiment in which subjects either trade an asset or predict its price. The former turns out to be more difficult for the subjects than the forecasting task, which leads to repeated price bubbles.



Tomasz A. Makarewicz (1984) holds a MA degree in economics and philosophy from Warsaw University and a MSc degree in economics from the Tinbergen Institute. In 2011 he joined the Center for Nonlinear Dynamics in Economics and Finance to write his PhD thesis. His main interests are individual learning and heterogeneous price expectations in experiments and agent-based models.

Learning to Forecast: Genetic Algorithms and Experiments

Tomasz Aleksander Makarewicz



LEARNING TO FORECAST:  
GENETIC ALGORITHMS  
AND EXPERIMENTS

ISBN 978 90 316 0410 4

Cover design: Crasborn Graphic Designers bno, Valkenburg a.d. Geul

This book is no. **597** of the Tinbergen Institute Research Series, established through cooperation between Thela Thesis and the Tinbergen Institute. A list of books which already appeared in the series can be found in the back.

# Learning to Forecast: Genetic Algorithms and Experiments

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor  
aan de Universiteit van Amsterdam  
op gezag van de Rector Magnificus  
prof. dr. D. C. van den Boom

ten overstaan van een door het college voor promoties ingestelde  
commissie, in het openbaar te verdedigen in de Agnietenkapel  
op dinsdag 11 november 2014, te 16:00 uur  
door

**Tomasz Aleksander Makarewicz**

geboren te Warschau, Polen

**Promotiecommissie**

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Faculteit Economie en Bedrijfskunde

# Acknowledgments

Writing a PhD thesis was one of the greatest intellectual adventures I have ever experienced, and this manuscript would never be finished if not for the help and inspiration I received from many friends, in academia and outside. I feel deeply indebted towards them and wish to express my gratitude in these pages.

The most important person that I would like to thank is my supervisor Cars Hommes. As a second year TI student I took his class on non-linear economic dynamics, which I liked so much that I decided to write PhD with him. This was an excellent choice: Cars showed incredible skill and patience in teaching me how to conduct economic research, and how to translate it into academic papers and conference presentations. Over the last three years, I greatly enjoyed our discussions and the thorough feedback I received from him, as well as the independence he confidently put in me. Without his careful guidance, none of the chapters of my thesis would have come to existence.

Another trait of my PhD position was that Cars built around himself a strong and diversified research group, and I was lucky to work with many fellow CeNDEFers. Chronologically the first two are Misha Anufriev and Jan Tuinstra, who helped me with TI MPhil thesis and the NWO grant for my doctoral position. This was a great opportunity to study the most recent economic literature and problems, and to think about my own research interests. Misha provided invaluable comments on my work, and we shared many philosophical discussions about economics and not only. Jan is an equally knowledgeable and amicable companion. Most of my teaching experience and skills come from assisting his microeconomics classes. I also owe thanks to Cees Diks, the friendliest statistician who never failed to answer my uncountable questions about econometrics and numerical techniques. Many of the ideas found in this thesis have roots in my discussions with Cees, Misha or Jan.

I also had a great pleasure to work with Te Bao. I run my first experiment with Te, and he was always ready to teach me anything I wanted to know about methodological and practical aspects of such an enterprise.

Special gratitude goes to Dávid Kopányi, my office mate throughout the whole PhD. Dávid is possibly the most kind and helpful person I have ever known. Together we have attended many conferences and went through the administrative side of academic work. I also thank Anghel Negriu, who has the most amazing music taste, and who was far too briefly my flat-mate.

During my PhD studies I worked in a warm and friendly atmosphere. I would like to thank my colleagues from the department for all the good time we shared, often abroad. I appreciate the company of senior CeNDEFers: Marco van der Leij, Marius Ochea, Roald Ramer and Florian Wagener; young post-docs and PhD students: Tatiana Kiseleva, Michiel van de Leur, Domenico Massaro, Florian Sniekers, Daan in 't Veld, Marcin Wolski and Paolo Zeppini; two post-docs that joined us in the last year, Zhenxing Huang and Isabelle Salle; and Kees Jan van Garderen from the econometrics group. I also thank our secretariat for their excellent support in dealing with administrative issues.

Outside the department, I met many people thanks to whom my studies in Netherlands were so pleasant. In the first place I thank Mark, with whom I shared a lifetime of assignments, never enough of friendship, and all these evening discussions about what really matters.

I could always count on the company of: Erkki, Eszter, Gergely, Gosia, Piotr, Rei, Stephanie, Swapnil, Violeta, Wookie, and many other TI students. A distinct and equally grateful appreciation goes to my flat-mate Guilherme. Finally, I wish to thank Frank for allowing me to live in his beautiful apartment.

I would never be able to study abroad at graduate level if not for my polish professors. My Warsaw supervisor Andrzej Cieřlik provided me with an excellent background in economics and mathematical tools, and then encouraged to apply for a foreign PhD position. I also want to thank my two philosophy mentors, Marcin Poręba and Jerzy Loziński, for their enormous effort in broadening my horizons and showing me the beauty of wisdom.

In Warsaw I have *the* best friends: in the chronological order, my Sekta is Krassus, Rafałsz, Neo, Karolina and Ania. I thank them for the time they generously shared with me, the moments that I love more than any other. I could not fail to mention Andrzej and Krzysztof, my friends from philosophy.

But the greatest gratitude and recognition go to my beloved Mother, who has always supported me with care, effort and friendship.

Amsterdam, October 2014



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