Yaron Lahav October, 2016

### **CURRICULUM VITAE**

#### · Personal Details

Date and place of birth: July 2, 1972, Israel

Military service (dates): 7 October 1990-7 February 1994

Address and telephone number at work:

Ben-Gurion University of the Negev, Guilford Glazer Faculty of Business and Management, Department of Business Administration, Room 116, Building 15, P.O. Box 653, Beer-Sheva, 84105, Israel, +97286479738

Address and telephone number at home:

Kibboutz Gevim 30, D.N. Hof Ashgelon, 7916500, Israel,

Phone (cell): +972549107098

#### Education

B.Sc.Agr. 1996-1999 – The Hebrew University of Jerusalem – Department of Agricultural Economics and Management

Ph.D. 2003-2007 – Emory University – Department of Economics

Name of advisor: Charles Noussair

Title of thesis: Beliefs and Decision Making in Asset Markets: Three Essays in Experimental Economics

• Employment History

# (a) Full time positions

2015-Present Senior Lecturer, Department of Business Administration, Ben-Gurion University of the Negev

2010-2015 Lecturer, Department of Business Administration, Ben-Gurion University of the Negev

2009-2010 Lecturer, Department of Economics and Business Administration, Ariel University

2007-2009 Senior Consultant, Deloitte Tax LLP

2000-2003 Financial Manager, Israeli Aerospace Industries LTD

## (b) <u>Visiting and other temporary appointments</u>

2015 – Region manager, Pa'amonim organization.

2011-2013 – Visiting Faculty – Economics department, University of Michigan (summer semesters)

2009 - Visiting Faculty - Economics department, Ruppin College

2008 – Adjunct Professor – Economics department, American University

#### Professional Activities

## (a) Positions in academic administration

2014-2016 – Team leader, John Molson Case Study Competition, Concordia University, Montreal, Canada.

2014-Present – Academic manager, the program for counseling on household financial management, The University Center for External Studies, Ben-Gurion University of the Negev.

2014 – Team leader, Sofaer Case Competition, Tel-Aviv University.

2011-Present – Member of the teaching committee – Department of business Administration, Ben-Gurion University of the Negev

## (b) Significant professional consulting

2013-2014 – Deloitte Brightman Almagor Zohar & Co. (Tel-Aviv, Israel), senior advisor.

2009 – Urban Institute (Washington, DC, USA) – Consultant

## (c) Membership in professional/scientific societies

2014-2016 – Society for Experimental Finance

2012-2013 – International Atlantic Economic Society

2012-2013 – American Accounting Association

2010-2011 - Southern Economic Association

2006-2007 – Economics Science Association

#### (d) Ad-hoc reviewer for journals

American Economic Review

**Economic Journal** 

Journal of Asset Management

Journal of Behavioral and Experimental Economics

Journal of Behavioral Finance

Journal of Economic Behavior and Organization

Management Science

#### Educational activities

#### (a) Courses taught

Principles of Microeconomics: undergraduate level, Emory University

Public Issues in Financial Economics: graduate level, American University

Introductory Finance: undergraduate level, University of Michigan

Financial Economics: undergraduate level, University of Michigan

Principles of Macroeconomics: undergraduate level, Ruppin College

Introductory Finance: undergraduate level, Ruppin College

Price Theory: undergraduate level, Ariel University Center

Introductory Microeconomics: undergraduate level, Ariel University Center

Seminar in Behavioral Finance: graduate level, Ben-Gurion University of the Negev

Seminar in Behavioral Finance: undergraduate level, Ben-Gurion University of the

Negev

Public Finance: undergraduate level, Ben-Gurion University of the Negev

Personal Finance: undergraduate level, Ben-Gurion University of the Negev

Financial Management: graduate level, Ben-Gurion University of the Negev

## (b) Research students

2014 – Shauli Tsfani – MBA, Ben-Gurion University of the Negev (jointly with Zvika

Afik) – Day of the week, day of the month and U.S. holidays effects on stock markets

return around the globe

2013-2014 – Roman Aronchekov – MBA, Ben-Gurion University of the Negev –

Experimental research of the rockets and feathers phenomenon in gas markets

2014-2015 – Lior Mey-Tal – MBA, Ben-Gurion University of the Negev – Does group size matter? Comparing decisions of groups with different sizes in the beauty contest game

2014-2015 – Adi Vormser – MBA, Ben-Gurion University of the Negev – *The effect of changes in accounting standards on Tel-Aviv Stock Exchange market*.

2014-2016 – Hofit Dafna – MBA, Ben-Gurion University of the Negev – *The empirical effectiveness of scoring rules* 

2014-2015 – Liviu Stern – MBA, Ben-Gurion University of the Negev – Experimental research of weighted scoring rules for non-discrete (continuous) forecasts

2013-2016 – Alisa Voslinsky – PhD, Ben-Gurion University of the Negev (jointly with Ofer Azar) – Beliefs, mood and irrelevant offer effects in the ultimatum game and differences between traders and observers in experimental asset markets 2015-2016 – Roi Haim – MBA, Ben-Gurion University of the Negev – Impact of work conflicts on the return on shares in companies which have been declared a work conflicts.

2016 – Michael Goldshmidt – MBA, Ben-Gurion University of the Negev – *Inconsistencies between beliefs and actions in games*.

#### Scientific Publications

H-Index: isi = 2. gs = 4.

G-Index: gs = 14.

Total citations: isi = 49. gs = 220.

Self citations: isi = 2. gs = 11.

## (a) Refereed articles and refereed letters in scientific journals

- 1. Haruvy<sup>C</sup>, E., Lahav<sup>S</sup>, Y., & Noussair<sup>PI</sup>, C.N. (2007). Traders' Expectations in Asset Markets: Experimental Evidence. *American Economic Review*, *97*(5): 1901-1920. [citations: isi = 46, gs = 181; IF: 4.08; ABDC Rank: A\*]
- 2. Lahav<sup>PI</sup>, Y. (2009). Behavioral Pattern Learning Models for Decision Making in Games. *Journal of Pattern Recognition Research 4*(1), 133-151. [citation: isi = 0, gs = 1; IF: NA; unranked]

- 3. Lahav<sup>PI</sup>, Y. (2011). Price Patterns in Experimental Asset Markets with Long Horizons. *Journal of Behavioral Finance 12*(1), 20-28. [citations: isi = 1, gs = 5; IF: 0.14; ABDC Rank: A]
- 4. Clausing<sup>PI</sup>, K, & Lahav, Y. (2011). Corporate Tax Payments under Formulary Apportionment: Evidence from the Financial Reports of 50 Major Multinaltional Firms", Journal of International Accounting, Auditing and Taxation 20(2), 97-105. [citation: isi = 0, gs = 2; IF: NA; ABDC Rank: B]
- 5. Avi-Yonah<sup>PI</sup>, R. S., & Lahav<sup>C</sup>, Y. (2012). The Effective Tax Rates of the Largest U.S. and EU Multinationals. *Tax Law Review 65*, 375-390. [citations: isi = 0, gs = 7; IF: 3.6; ABDC Rank: A]
- 6. Benshalom<sup>PI</sup>, I., & Lahav<sup>C</sup>, Y. (2013). Will High Paying Jobs Go Abroad? Labour Shifting Responses to Formulary Allocation. *Australian Tax Forum* 28(4), 753-785. [citations: isi = 0, gs = 0; IF: NA; ABDC Rank: A]
- 7. Lahav<sup>PI</sup>, Y., & Chernin<sup>S</sup>, Y. (2014). The People Demand Social Justice The Impact of Protests on Financial Markets. *Accounting, Economics and Law A Convivium 4*(2), 99-121. [citations: isi = 0, gs = 0, IF: NA; ABDC Rank: unranked]
- 8. Afik<sup>PI</sup>, Z., Lahav<sup>PI</sup>, Y, & Ochakovski<sup>S</sup>, Z. (2014). There's No Smoke without Fire: Equity Returns Response to Indictment Filing. *International Journal of Economics and Finance 6*(7), 24-30. [citations: isi = 0, gs = 1; IF: 0.67; ABDC Unranked]
- 9. Afik<sup>PI</sup>, Z., & Lahav<sup>PI</sup>, Y. (2015). Thinking Near and Far: Modeling Underreaction, Overreaction and the Formation of Traders' Beliefs in Asset Markets using Experimental Data. *Journal of Behavioral and Experimental Economics 57*, 73-80. [citations: isi = 0, gs = 0; IF: ; ABDC Rank: B]

- 10. Afik<sup>PI</sup>, Z., & Lahav<sup>PI</sup>, Y. (2015). A Better 'Autopilot' than Sell-in-May? 40 Years in the U.S. Market. *Journal of Asset Management 16*, 41-51. [citations: isi = 0, gs = 0; IF: NA; ABDC Rank: B]
- 11. Azar<sup>PI</sup>, O., Lahav<sup>PI</sup>, Y., & Voslinsky<sup>S</sup>, A. (2015). Beliefs and Social Behavior in a Multi-Period Ultimatum Game. *Frontiers in Behavioral Neuroscience 9*, Article 29, 1-11. [citations: isi = 0, gs = 0; IF: 5.07; ABDC Rank: Unranked]
- 12. Lahav<sup>PI</sup>, Y. (2015). Eliciting Beliefs in Beauty Contest Experiments. *Economics Letters* 137, 45-49. [citations: isi = 0, gs = 0; IF: 0.51; ABCD Rank: A]
- 13. Afik<sup>PI</sup>, Z., & Lahav<sup>PI</sup>, Y. (2016). Risk Transfer Valuation in Advance Pricing Agreements between Multinational Enterprises and Tax Authorities. *Journal of Accounting, Auditing and Finance 31(2), 203-211*. [citations: isi = 0, gs = 0; IF: 1.10; ABDC Rank: A]
- 14. Afik<sup>PI</sup>, Z., Lahav<sup>PI</sup>, Y., & Mendelzweig<sup>S</sup>, L. (2016). The Inverse of a Terror Event? Stock Market Response to Pro-Active Action. *Studies in Economics and Finance 33(1), 91-105*. [citations: isi = 0, gs = 0; IF: NA; ABDC Rank: B]
- 15. Gavious<sup>PI</sup>, I., Lahav<sup>PI</sup>, Y., & Russ<sup>PI</sup>, M. (2016). Economic Effect on Human Capital Valuation. *Asia Pacific Journal of Accounting and Economics 23(2), 200-223*. [citations: isi = 0, gs = 0; IF: 0.15; ABDC Rank: Unranked]
- \* 16. Afik<sup>PI</sup>, Z., Lahav<sup>PI</sup>, Y., Sayar<sup>S</sup>, E., & Yosef, R. (2016). You Can Do Beter than "Sell in May". It is Not Halloween, but it May Be Passover and Hanukah.

  \*\*International Journal of Economics and Finance 33(1), 91-105. [citations: isi = 0, gs = 0; IF: NA; ABDC Rank: Unranked]
- \*17. Lahav<sup>PI</sup>, Y. & Salganik<sup>PI</sup>, G. (In press). Measuring and Characterizing the Domestic Effective Tax Rate of US Corporations. *Advances in Taxation*. [citations: isi = 0, gs = 0; IF: NA; ABDC Rank: B]
  - (b) Unrefereed professional articles and publications

1. Lahav<sup>PI</sup>, Y., & Meer<sup>PI</sup>, S. (2015). The Effect of Induced Mood on Prices in Asset Markets – Experimental Evidence. Published on *ssrn.com* [citations: gs = 5, *ssrn.com* = 3]

## • Lectures and Presentations at Meetings and Invited Seminars

(a) <u>Presentation of papers at conferences/meetings (oral or poster)</u>
Ernan Haruvy, Yaron Lahav and Charles Noussair, 2006, "Traders' Expectations in Asset Markets: Experimental Evidence", Economics Science Association Annual International Meeting, Atlanta GA, USA.

Yaron Lahav, 2006, "Using Pattern Recognition to Learn about the State of Nature: an Introduction of a New Learning Model", Economics Science Association North American Regional Meeting, Tucson AZ, USA.

Reuven Avi-Yonah and Yaron Lahav, 2011, "The Effective Tax Rates of the Largest US and EU Multinationals", American Tax Policy Institute Conference on International Taxation and Competitiveness, Washington DC, USA.

Yaron Lahav and Galla Salganik, 2012, "Measuring and Characterizing the Domestic Effective Tax Rate of US Corporations", International Atlantic Economics Society, 74<sup>th</sup> conference, Montreal, Canada.

Yaron Lahav, 2013, "Transfer Pricing, Vertical Integration and Production Externalities: Implication on Profits and the Arm's Length Principle", Taxing Multinational Firms, ZEW (Centre for European Economic Research), Mannheim, Germany.

Yaron Lahav and Zvika Afik, 2013, "Risk Transfer Valuation in Advance Pricing Agreements between Multinational Enterprises and Tax Authorities", Taxing Multinational Firms, ZEW (Centre for European Economic Research), Mannheim, Germany.

Yaron Lahav and Zvika Afik, 2014, "Thinking Near and Far: Modeling Underreaction, Overreaction and the Formation of Traders' Beliefs in Asset Markets using Experimental Data", Experimental Finance Conference, Zurich, Switzerland.

Yaron Lahav and Roman Aronchekov, 2014, "Rockets and Feathers in Gas Markets: An Experiment", Annual Conference of the Society for the Advancement of Behavioral Economics (SABE): "Stretching Behavioral Economics", Lake Taohe, NV, United States.

Yaron Lahav, 2015, "Eliciting Beliefs in Beauty Contest Experiments", 6<sup>th</sup>
Anniversary of Thurgau Experimental Economics Meeting, Kreuzlingen, Switzerland.

## (b) <u>Seminar presentations at universities and institutions</u>

2009 - "Experimental Asset Markets: Traders' Expectations and Design

Adjustments". Department of Economics, Technion, Haifa, Israel.

2009 - "The Effect of Induced Mood on Prices in Experimental Asset Markets".

Department of Economics, Bar Ilan University, Ramat-Gan, Israel.

2009 – "Traders' Expectations in Asset Markets: Experimental Evidence". Business School, Inter Disciplinary Center, Herzlia, Israel.

2009 – "Experimental Asset Markets: Traders' Expectations and Design Adjustments". Department of Business Administration, Ben-Gurion University of the Negev, Beer Sheva, Israel.

2009 - "The Effect of Induced Mood on Prices in Experimental Asset Markets".

Department of Economics and Business Administration, Ariel University Center, Ariel, Israel.

2010 - "Expectations, Structure and Mood in Experimental Asset Markets".

Department of Economics, Haifa University, Haifa, Israel.

2012 – "A Model of Traders' Beliefs in Asset Markets". Department of Public Finance, the University of Innsbruck.

2014 – "Thinking Near and Far:

Modeling Underreaction, Overreaction and the Formation of Traders' Beliefs in Asset Markets using Experimental Data". International Business School, Brandeis University.

#### • Research Grants

2010 - Yaron Lahav<sup>PI</sup>, European Union, Research Executive Agency - Marie Curie

Subject: "Prices and Expectations in Asset Markets – a Field Experiment"

Period of grant: 2010 – 2014.

Annual amount: 38,129\$. Total amount: 152,503\$

2012 – Yaron Lahav<sup>PI</sup>, The Council for Higher Education, the Planning and Budgeting Committee

Funding for the course "Personal Finance"

Period of grant: 2012-2013.

Annual (and total) amount: 10,811\$.

2014 – Yaron Lahav<sup>PI</sup>, International Foundation for Research in Experimental Economics (IFREE)

Subject: "Rockets and Feathers in Gas Markets – The Experimental Approach"

Period of grant: 2014 – 2015.

Annual (and total) amount: 8,500\$.

### • Present Academic Activities

#### (a) Research in progress

Lahav<sup>PI</sup>, Y., & Salganik, G. (2015). Measuring and Characterizing the Domestic Effective Tax Rate of US Corporations. Advances in Taxation, Revise and Resubmit.

"Transfer Pricing, Vertical Integration and Production Externalities: Implications on Profits and the Arm's Length Principle". Working paper.

Expected date of completion: 2016

"Experimental Research of the Rockets and Feathers Phenomenon in Gas Markets" (with Roman Aronchikov) – Working Paper.

Expected date of completion: 2016

"The Effect of Changes in Accounting Standards on Tel-Aviv Stock Exchange" (with Adi Wormser) – Working paper.

Expected date of completion: 2016

"The Effect of Transfer Pricing Methods on Asset Accumulation".

Expected date of completion – 2016.

"Practical Valuation of Risk Transfer in Advance Pricing Agreements" (with Zvika Afik) – Working paper.

Expected date of completion -2016.

"Aiming for the Real Estate Market but Hitting the Stock Market – An Event Study Analysis of Israeli Mortgage Reforms" (with Sara Arbel and Alisa Mizrahi) – Working paper.

Expected date of completion -2016.

Lahav<sup>PI</sup>, Y., & Meer<sup>PI</sup>, S. (2016). "The Effect of Induced Mood on Prices in Asset Markets – Experimental Evidence" (with Shireen Meer) – Working paper. Expected date of completion – 2016.

#### Additional Information

2010-present: Volunteer, "Pa'amonim" association

1998-1999: Treasurer - Kibboutz Nahal-Oz, Israel

## • Research Synopsis

My research agenda is comprised of two main research areas. The first is in behavioral and experimental economics and finance, and the second is in the field of international corporate taxation and transfer pricing. While my work is on both topics, I consider my research in the field of experimental and behavioral economics and finance as more important. As most of my work is in this topic, I will relate to it more deeply in this statement.

My work on corporate tax is a result of practicing the field for two years. While this is not my main topic, I am still attracted to recent trend in the network of firms, tax

authorities and regulations in general, and how firms respond to these developments in particular.

Most of my previous work, as well as my planned future work, is conducted with coauthors of two kinds: experts and research students. I believe that a collaboration with experts is a strong contributor to high quality work, while sharing the time and knowledge with students is an essential component of our work.

The core activity in the field is the formation of beliefs and their contribution in decision-making. In particular, I conduct laboratory experiments to understand the effect of historic information on the formation of beliefs regarding future outcomes. In my research is focus on various scenarios. At the beginning of my research career, I focused on two cases: the first is the way people reinforce the process of recognizing repeated patterns to learn about possible outcomes of a system that cannot recognize them. In economic theory, such a system is referred to as "nature". Examples are the weather, or the stock market. Unlike most studies dealing with people playing games against other people, when a person is facing nature, she has no reason to act strategically and therefore adopt pattern recognition as a last resort.

Another aspect of my work is studying the financial side of beliefs and decision experimentally. In several research studies, I simulate a stock market in the lab, with a group of people acting as traders, with experimental cash and shares. In this bulk of research, I first show that historic asset prices act an important role in the formation of beliefs, and then provide behavioral models that predict how beliefs are formed and how they affect trade decision.

As part of my efforts to implement the results of my lab experiments to the field, I modify my experiments so that they resemble the field as close as possible. Thus far, I managed to contradict previous findings of other researchers, showing that their conclusions, using lab experiments, are not robust to experiments that reflect the field more accurately.

My research on the formation of belief is not restricted to playing against nature. In my research, I also elicit beliefs of people in experiments when they play games against others. In many cases, I show inconsistency between elicited beliefs and decisions. This part is the motivation to study different elicitation methods, and how they affect the data. It appears that people react differently to different ways of rewarding them for their beliefs. This part will be described in detail in the next subsection.

When eliciting beliefs from human subjects, the elicitation procedure may affect the results. This fact may cast doubt on research in the field, because elicited beliefs are required to be as accurate as possible, while the elicitation procedure should not affect later stages in the experiment, like decisions.

Part of my research is dedicated to this issue, with two main purposes. The first is to provide the research community with ways to elicit beliefs properly. The second is to evaluate existing elicitation procedures and study the ways they distort actual beliefs. An important aspect of traders' beliefs is their perception regarding the beliefs of their peers. When making trade decisions, traders put effort on the beliefs of their fellow traders, with the intention to be one-step ahead of them. This concept of higher order

beliefs was first suggested by John Maynard Keynes during the 1930's, and was explored experimentally starting during the 1980's using an experimental design called "the p beauty contest". In this experiment, researchers use people's decisions as a source of information regarding their beliefs. My research shows that in this experiment, when eliciting beliefs instead of inferring them from actual choices, conclusions are significantly different. When eliciting beliefs, I show that people are more sophisticated than expected. Furthermore, as mentioned, their beliefs are inconsistent with their decision. In this case, the reason is probably not the elicitation method, but the complexity of the task.

Part of my empirical research focuses on how the stock market reacts to events that either should not affect it, or should affect it in opposite direction. In this bulk of research, I use the well-known 'event study' analysis to study, for instance, the effect of social processes or regulations. In one such work, I study how the social protestation events during the summer of 2012 affected the stock return of retail chains, which were targeted by the protestors. I show that the way companies react to protest events against them can influence both their stock return and traders' expectations regarding these returns.

Another paper examine the effect of the announcements made by the former head of the Bank of Israel, limiting mortgage possibilities. I show that while the main concern of the head of the Bank of Israel was the mortgage market, it did not affect the price of housing. On the other hand, while not the target, the stock return of real estate companies was significantly affected by these announcements.

More work in this bulk of research is the effect of military operations and even indictments on relevant stocks.

My research work on corporate tax is dedicated mostly to behavioral responses of firms to changes in regulations. My first work in the field was a collaboration that proved the contrary regarding a convention that European firms pay less taxes the U.S. firms. In our work, we were able to show that U.S. companies in fact pay less tax effectively, mainly due to higher tax cuts.

Additional work was dedicated to taxing foreign income of multinational corporations. In particular, I use economic and accounting models to show how tax revenues will be affected by changes the current regulations to alternative ones.

Transfer pricing is the way corporations determine the prices on intercompany transactions. When intercompany transactions are also international, they have an impact on the geographical location of the profits, and therefore can affect the effective tax rate of the corporation. Regulations around the world therefore require that international transactions between related business entities will be priced at arm's length.

This requirement determine not only how multinational corporations price these related transactions, but also how they structure themselves internationally. My research in the field is dedicated to understand how different types of requirements affect both the firm structure and the allocation of resources (assets, investments) geographically.

My main work show that the different methods that are available to the firm to determine transfer pricing significantly affect its location of asset, investment, and even

profits. As data on intercompany allocations is not available, most of my work is based on theoretical modeling.

As mentioned, most of my work is dedicated to studying beliefs experimentally. My current work spans all aspects detailed in section 2. In the near future, two experimental sessions are planned to be conducted within the next few months on elicitation methods, and one more experimental session on differences in belief formation between traders and analysts.

I also engage in a few research papers on behavioral finance, one of them explores the effect of strikes on the company's stock prices. Another work focuses on seasonality effects on stock markets.