

Updated in January 2018

Philip Ushchev

PERSONAL

- Personal web page: <https://sites.google.com/site/philipushchev>
- E-mail: fuschev@hse.ru, ph.ushchev@gmail.com
- Language proficiency: Russian (native), English (fluent), German (good), Italian (basic)

EDUCATION

2013: 5 years of diploma program in Mathematics and Mechanics, Saint Petersburg State University, Department of Mathematics and Mechanics (Russia)

2006: Candidate of Science in Economics, Saint Petersburg State University of Economics (Russia)

2005: MA in Economics, European University at Saint Petersburg (Russia)

2002: BA in Economics, Saint Petersburg State University of Economics (Russia)

RESEARCH INTERESTS

Applied general equilibrium (macro, trade). Industrial organization. Urban economics. Games on networks.

CURRENT EMPLOYMENT AND AFFILIATIONS

Since 2011: National Research University Higher School of Economics (Moscow),

Leading research fellow at the Center for Market Studies and Spatial Economics

Since 2011: National Research University Higher School of Economics (Saint Petersburg),

Dozent (lecturer equivalent) at the Department of Economics

PREVIOUS PROFESSIONAL EXPERIENCE

2006–2011: Saint Petersburg State University of Economics (SPbSUE), Dozent (lecturer equivalent)

RESEARCH PAPERS

Published papers

- Ivanova, V., and P. Ushchev (2018). Product Differentiation, Competitive Toughness, and Intertemporal Substitution. *Scandinavian Journal of Economics*, forthcoming.
- Parenti, M., Ushchev, P., and J.-F. Thisse (2017). Toward a Theory of Monopolistic Competition. *Journal of Economic Theory* 167 (1): 86-115.
- Ushchev, P. (2017). Multi-Product Firms in Monopolistic Competition: the Role of Scale-Scope Spillovers. *Research in Economics* 71(4): 675-689.
- Ushchev, P., Sloev, I., and J.-F. Thisse (2015). Do We Go Shopping Downtown or in the 'burbs? *Journal of Urban Economics* 85 (1): 1-15.
- Osharin A., Thisse, J.-F., Ushchev, P., and V. Verbus (2014). Monopolistic Competition and Income Dispersion. *Economics Letters* 122 (2): 348-352.
- Thisse, J.-F., and P. Ushchev (2017). Monopolistic Competition without Apology. Forthcoming in *Handbook of Game Theory and Industrial Organization*, eds. Louis Corchon and Marco Marini.

Papers under R&R

- Ushchev, P., and Y. Zenou (2015). Price Competition in Product Variety Networks. CEPR DP10862. **2nd round of R&R requested from Games and Economic Behavior**
- Malykhin, N., and P. Ushchev (2016). Clustering or Co-Agglomeration? A Love-for-Variety Approach. HSE WP BRP 140/EC/2016. **2nd round of R&R requested from Regional Science and Urban Economics**

Submitted papers

- Matsuyama, K., and P. Ushchev (2017). Beyond CES: Three Alternative Classes of Flexible Homothetic Demand Systems. CEPR DP12210, also available as HSE WP BRP 172/EC/2017. **Submitted to Econometrica**
- Kokovin, S., M. Parenti, M., J.-F. Thisse and P. Ushchev (2017). On the Dilution of Market Power. CEPR DP12367, also available as HSE WP BRP 176/EC/2017. **Submitted to the Journal of Economic Theory**

Completed working papers

- Bucci, A., and P. Ushchev (2016). Specialization vs Competition: An Anatomy of Increasing Returns to Scale. HSE WP BRP 134/EC/2016
- Thisse J.-F., and P. Ushchev (2016). When Can a Demand System Be Described by a Multinomial Logit with Income Effect? HSE WP BRP 139/EC/2016.

Work in progress

- Technology Adoption and Social Norms (with Y. Zenou)
- Welfare in Multisectoral Models with Endogenous Product Variety (with K. Behrens and S. Kichko)
- Unifying Local and Global Competition: When Kaldor Meets Chamberlin (with M. Sandomirskaya and J.-F. Thisse)
- Conformism, Product Quality, and Heterogeneity (with S. Kichko and P. M. Picard)

Publications in Russian Journals

- Ushchev, P., Sloev, I., and J.-F. Thisse (2014). Competition between Small Shops and a Large Shopping Center. *Journal of the New Economic Association* 23 (3): 12-37. (in Russian)
- Molchanov, P., and P. Ushchev (2013). The Impact of Market Size on Multi-Product Firms' Concentration in a Monopolistic Competition Model. *Mathematical Game Theory and Applications* 5 (3): 27-57. (in Russian)
- Zhelobodko, E., Kichko, S., and P. Ushchev (2013). Factor Endowments and Market Integration in a Two-Factor Monopolistic Competition Model. *Spatial Economics* 3: 10-29. (in Russian)

TEACHING

- Advanced Microeconomics, part 1 (graduate level, HSE-2016, 2017)
- Industrial Organization (graduate level, HSE-2017)
- Empirics of International Economics (undergraduate level, HSE-2016, 2017)
- Intermediate Macroeconomics (undergraduate level, HSE-2011, 2012)
- Uncertainty (graduate level, HSE-2011, 2012, 2013)

- Mathematics for Economists (graduate level, HSE-2013, 2014)
- World economy (undergraduate level, HSE-2014, 2015)
- Models of Economic Dynamics (graduate level, SPbSUE-2006, 2007, 2008, 2009, 2010, 2011)
- Econometric Modeling (graduate level, SPbSUE-2009, 2010, 2011)
- Risk and Uncertainty (undergraduate level, SPbSUE-2009, 2010, 2011)

REFEREE SERVICE

Journal of Economic Geography. Journal of Economic Theory. Journal of Economics and Management Strategy. Journal of Political Economy. Journal of Regional Science. Journal of Urban Economics. RAND Journal of Economics.

GUEST VISITS, CONFERENCES AND SEMINARS

Guest visits

- Monash University (Melbourne, Australia): August 2017
- Tinbergen Institute (Amsterdam, Netherlands): April 2017
- CORE, Universite Catholique de Louvain (Brussels, Belgium): January 2013; January 2014; January 2015; February 2016; February 2017
- IDE-JETRO (Tokyo, Japan): May 2016
- Columbia University (New York, USA): October–November 2015
- Stockholm University, Department of Economics (Stockholm, Sweden): April 2014
- University of Milan, Department of Economics, Management and Quantitative Methods (Milan, Italy): April 2013

Presenter at conferences

2017: UEA European meeting (Copenhagen, Denmark)

2016: EARIE (Lisbon, Portugal); EEA-ESEM (Geneva, Switzerland); RES (Brighton, UK)

2015: SAET, invited session (Cambridge, UK); APET (Luxembourg); RES (Manchester, UK); ICARE (Perm, Russia); META (Nizhny Novgorod, Russia)

2014: EARIE (Milan, Italy); EEA-ESEM (Toulouse, France); APET (Seattle, USA); AMES (Taipei, Taiwan)

2013: ICARE (Perm, Russia); EEA-ESEM (Gothenburg, Sweden); AMES (Singapore); APET (Lisbon, Portugal)

2012: ITSG (Trento, Italy); EARIE (Rome, Italy)

Presenter at seminars

2017: Tinbergen Institute (Amsterdam, Netherlands), April 20

2016: IDE-JETRO (Tokyo, Japan), May 25

2014: New Economic School (Moscow, Russia), April 7; Stockholm University, Department of Economics (Stockholm, Sweden), April 23

2013: University of Milan, Department of Economics, Management and Quantitative Methods (Milan, Italy), April 17

PARTICIPATION IN SUMMER SCHOOLS AND ADVANCED COURSES

- “Market Power” by Marc Melitz, Paul Klemperer, and Ariel Pakes, ECORES Summer School (Universite libre de Bruxelles, Belgium), May 2015
- “International Trade and Inequality” by Federico Trionfetti, advanced course (HSE Saint Petersburg, Russia), September 2014
- “Microeconometrics” by Jeffrey Wooldridge and Timothy Vogelsang, advanced course (Michigan State University, USA), June 2014
- “Economics of Networks” by Yves Zenou, advanced course (HSE Saint Petersburg, Russia), September-October 2013
- “Search Models in Labor Market and Urban Economics” by Yves Zenou, advanced course (Universidad Autonoma de Madrid, Spain), October 2012
- “Special Issues in International Trade” by Gene Grossman, advanced course (Kiel, Germany), October-November 2012
- “Spatial Economics: How Geography Matters for Economics”, three-year program, Regional Seminar for Excellence in Teaching, New Economic School (Moscow) and HESP, 2010-2012

PARTICIPATION IN RESEARCH GRANTS

2008–2010: “Adaptation of endogenous growth models for analysis of regional economic dynamics in Russia”, RFBR grant 08-06-00418a

2012–2014: “Multi-product firms in monopolistic competition: the impact of opening trade”, EERC grant 12-5711

2015–2016: “Studying competition between shopping places using a theory of hybrid market structures”, individual HSE grant

AWARDS

- 2008: 3rd Ovsievich prize “For the fundamental research in mathematical economics carried out in Russia”, for applying models of endogenous growth to the analysis of economic dynamics of the Russian regions.

JMP 1. Beyond CES: three alternative classes of flexible homothetic preferences (with Kiminori Matsuyama)

We characterize three classes of homothetic demand systems, all of which are defined non-parametrically: homothetic demand systems with a single aggregator (HSA), those with direct implicit additivity (HDIA), and those with indirect implicit additivity (HIIA).

The HSA class of demand systems is identified by the property that the budget share of each good is a function of its own price divided by a single price aggregator (linear homogeneous in all prices), which is common across all goods. For each set of the budget-share functions, this common price aggregator is defined so that the budget constraint of the consumer is satisfied. The defining feature of HSA is that a single price aggregator captures the cross-price effects on demands for all goods. We find the necessary and sufficient conditions on a set of the budget-share functions under which the corresponding HSA demand system is generated by a well-defined, monotone, convex, homothetic preference. Furthermore, we establish the one-to-one mapping between the preference and the budget-share functions that satisfy these conditions whenever there are more than two goods. This means that we can treat the budget-share functions as the primitives of the model. In addition, we derive the functional relationship between the common price aggregator, which summarizes all the cross-price effects on demand, and the ideal price index of the preference, which summarizes the welfare effect of prices. Remarkably, these two price aggregators coincide if and only if the preference is CES when there are more than two goods. We also discuss some parametric examples of HSA, including separable translog, for which the common price aggregator is the weighted geometric mean of prices and linear expenditure shares, for which the common price aggregator is the weighted arithmetic mean of prices. We also offer an example of HSA, which is a hybrid of Cobb-Douglas and CES, such that all goods are gross substitutes, and yet only some of them are essential.

Then, we turn to two other classes of homothetic demand systems, both of which are generated by implicitly additive preferences; one with direct implicit additivity (HDIA), and one with indirect implicit additivity (HIIA). We show that, in each of these two classes of homothetic demand systems, the cross-price effects are characterized by two price aggregators, one of which is the ideal price index. Furthermore, it is shown that these two price aggregators are proportional to each other if and only if the preference is CES. This is the only case when these homothetic demand systems become HSA. From these results, it is a short step to demonstrate that these three classes of homothetic demand systems, HSA, HDIA, and HIIA, are pairwise disjoint with the sole exception of CES.

JMP 2. Technology adoption and social norms (with Yves Zenou)

Heterogeneous agents, embedded in a social network, first decide whether or not to adopt a new costly technology, and then choose their level of productivity effort. The latter choice is affected by the social norm of each individual so that she loses utility from failing to conform to the average effort of her peers (local-average model). Contrary to the local-aggregate model, we show that, in the second stage, if agents are *ex ante* identical, they all exert the same effort level, even though they have different positions in the network. Multiple equilibria may arise in the two-stage game. We show under which conditions symmetric and asymmetric subgame-perfect Nash equilibria emerge and why they are inefficient. Finally, we propose different subsidy policies that can restore the first-best solutions.

Our framework is general enough to be applied to a wide variety of issues. Here are some examples:

(i) *Assimilation choices*: In the first stage, each ethnic minority has to decide whether they have a low or high level of assimilation but it is more costly to be have a higher level of assimilation (learning a language, for example). In the second stage, given the choice of assimilation, more assimilated individuals have higher productivity effort than the low-assimilated ones because they know better the culture of the host country. In the second stage, the social norm for each individual is the share of assimilated people among her friends.

(ii) *Tax evasion*: In the first stage, each agent has to decide the level of tax evasion (low or high). For example, they have to decide whether or not they want to put some of their money in a Swiss bank account or in an offshore bank account, given that it is more costly to evade more because the probability of being detected is higher. In the second stage, each agent has to decide how much income to conceal given that it is easier to conceal more income, the higher is the level of tax evasion in the first stage (if part of your money is in a Swiss bank account or an offshore bank account then it is easier to conceal income). In that case, the social norm for each individual is share of tax evaders among her friends.

(iii) *Crime*: In the first stage, each individual decides whether or not to join a gang (or anything that can improve the technology of committing crime). It is costly to join a gang because of entry cost, however, you adopt a better technology of committing crime. In the second stage, each criminal decides individually how much crime to commit given that you are more efficient in committing crime, if you have joined a gang in the first period (for example, because the probability of being caught is lower). In that case, the social norm for each criminal is the share of criminals among her friends.

To sum up, our model has strong policy implications in terms of assimilation policies as well as policies fighting against tax evasion and crime.