THE SELF-EVALUATION REPORT ON RESEARCH

INSTITUTE OF ECONOMIC STUDIES

FACULTY OF SOCIAL SCIENCES, CHARLES UNIVERSITY

1. MISSION, PROFILE, VISION

The Institute of Economic Studies (IES) is a collection of five small departments that provide undergraduate, Masters and doctoral degrees in Economics and Finance for almost 30 years. Its mission is to provide *high-quality education* and conduct internationally *competitive research* in Economics and Finance.

The key characteristics are as follows:

- Global environment. A vast majority of courses is taught in English. More than 1,500 international students from 83 countries have studied with us over the last 10 years. Professors from premier institutions such as Princeton University, Oxford University, and University of Cambridge regularly stay with us and teach brief courses. In the last three years, 94% of undegraduate and Master theses are were written and defended in English.
- International experience. We offer numerous Erasmus+ exchange agreements for students, plus study-abroad opportunities out of Europe. For PhD students and faculty, numerous research visits are available; faculty members have in recent years spent long-term visits at top universities such as University of California, Berkeley, Harvard University, and Columbia University.
- Mixing academics and practitioners. Our faculty members publish in highly selective field
 journals, including top field or even top journals in Economics, such as American
 Economic Review or Journal of the European Economic Association. Among adjunct faculty
 you may find two current Board members and a former governor of the Czech National
 Bank. Advisory board consists of representatives of various industries and economic
 policymakers.
- *Quantitative skills.* Students are exposed to 7 mandatory Mathematics, Statistics and Econometrics courses on the undergraduate level (mostly taught by academics with PhDs in Mathematics) and many other specialized quantitative courses on the graduate level. Every year, our best students equipped with this skillset are admitted to top European universities such as Oxford, Cambridge, LSE, UCL, and Zurich.
- Small and selective school. Among undergraduate programs in Economics in the country, we have by far the most demanding entry criteria. Approximately 90 Bachelors, 80 Masters, and 5 PhDs graduate annually from our programs. We are small also in terms of faculty: As of October 2019, we have in total 25 full-time faculty members, and 31 part-time faculty members in five departments. (See Table 1.) This is small especially given extensive teaching and advising duties: currently, we are offering 47 undergraduate and 52 Master courses. Also, over the last three years, 229 undergraduate and 199 Master theses were supervised and defended at IES.
- Hub of talent. We help our students by providing individual recommendations and motivation for extracurricular work. Our alumni are thus highly successful in the job market, both in academia and the private sector. (The best academic placement from our PhD program is Assistant Professor at Barnard College, Columbia University in 2017.) Graduates also receive numerous national and international academic prizes for their theses, including undergraduates theses. For a comprehensive list of prizes and awards of our students, see: http://ies.fsv.cuni.cz/en/node/265

Our vision is to further promote excellence in teaching and research, confirming the Charles University as a top research institution in the area of Economics and Finance in the Czech Republic and also as an increasingly more important academic institution worldwide. To give a brief idea of the current standings, according to the well-known Shanghai Ranking's Global Ranking of Academic Subjects, Charles University now globally ranks **76-100**th in Economics, and **151-200**th in the world in Finance (ARWU 2019).

Table 1: Size and composition of the Institute of Economic Studies

	Full-time	Part-time	
Assistant Professors	4	1	
Associate Professors	8	6	
Professors	4	3	
Junior Lecturers	0	1	
Senior Lecturers	3	10	
Junior Researchers	3	10	
Senior Researchers	2	0	
Total	25	31	

2. RESEARCH AREAS AND THEIR STANDING

Our research predominantly focuses on Economics and Finance and in particular on research that cross-fertilizes Economics and Finance. In addition, we conduct interdisciplinary research related to Economics and Finance, mostly at the intersections with Psychology, Political Science, Statistics, and Applied Mathematics.

Research areas

Our research activities cover many diverse areas in Economics and Finance, but four most active research groups at the moment are as follows:

- 1) Financial Econometrics: The research group predominantly seeks to develop new econometric techniques for modeling financial data and testing beliefs regarding price formation. The group contributes to research in financial econometrics in three broad areas: management and measurement of financial risk, market dependencies, and new techniques in frequency domain. Recent publications include *Journal of Financial Econometrics*, *Journal of Financial Markets*, and *Econometric Reviews*.
- 2) Experimental Economics: The research group uses high-quality original data tailored to address specific questions regarding human behavior to improve our understanding of a range of social and economic phenomena, in particular poverty and inequality. The group uses tools from experimental economics and collect new data among people in different parts of the world. Recent publications include *American Economic Review*, *Economic Journal*, and *Proceedings of the National Academy of Sciences*.
- 3) Macroeconomics and Finance: The research group examines the nature and effects of various macroeconomic policies in relation to the recent global financial crisis and related financial stability issues. The group focuses on issues such as monetary policy, financial stability and macro-finance interactions using various macroeconometric, general equilibrium or meta-analytical tools. Recent publications include *Journal of the European Economic Association, IMF Economic Review*, and *World Bank Economic Review*.
- 4) Energy Economics: The research group contributes to the development of the new analytical framework firmly based on economic theory and serving as a tool for

investigation of various issues regarding climate change or energy policies. The recent publications include *Energy Journal*, *Energy Economics*, and *Energy Policy*.

In addition to these four strong research groups, we also have individuals focusing on many other areas such as corporate finance, economic history, health economics, labor economics, public economics, and political economy. In terms of methods, most faculty are trained as econometricians with various leanings (times series econometrics, econometric theory, microeconometrics, meta-analytical methods) but we also have experimental economists, an applied theorist, and an economic historian.

Top journal publications and citations

As explained in detail below in Section 3, all core faculty members are expected and motivated to publish in well-established field journals, and many of them manage to publish in highly-selective field, top field, or even top journals. In 2014-2018, our faculty have published in the American Economic Review, Economic Journal, Journal of Economic Perspectives, Journal of the European Economic Association, Journal of International Economics, IMF Economic Review, Experimental Economics, Journal of Financial Markets, Journal of Applied Econometrics, Economic Geography, European Economic Review, Journal of Financial Econometrics, World Bank Economic Review, Econometric Reviews, among many other journals. The list documents that faculty are strongly embedded in the international research community and can publish their research in highly respected international journals.

Our research also has an impact in global academia. In 2014-2018, research of our faculty (in total articles of 8 faculty and 1 PhD student) was cited in the following top journals: *Science, American Economic Review, Quarterly Journal of Economics, Journal of Political Economy, Journal of Financial Economics, Review of Financial Studies* and *Review of Economic Studies*. For details, see: http://ies.fsv.cuni.cz/en/node/401

Besides, several of our articles made it to the lists of "most cited articles" of the journals in which they were published. (As the main example, Elsevier has released the most cited articles category for their journals in 2016.) Currently, our articles published in 2016 or later are listed among most cited category in *European Economic Review*, *Journal of Financial Stability*, *World Development*, *Journal of International Money and Finance*, *International Review of Economics & Finance* and *Journal of Financial Markets*. (Formerly, we also had most-cited articles in the *Journal of the European Economic Association*, *Journal of International Economics* and *Journal of Comparative Economics*.) Interestingly, as of August 29, 2019, the article with the highest number of citations ever in the history of the *Journal of Financial Markets* is an article written by our three of our researchers. See also: http://ies.fsv.cuni.cz/en/node/401

Regarding the citations in general, our researchers are among the top cited economists in the Czech Republic. Our five most cited researchers are as follows (as of October 11, 2019):

- Ladislav Krištoufek (Web of Science = 1446, Scopus = 1763, Google Scholar = 3130)
- Evžen Kočenda (Web of Science = 1049, Scopus = 1468, Google Scholar = 4088)
- Tomáš Havránek (Web of Science = 836, Scopus = 974, Google Scholar = 2800)
- Roman Horváth (Web of Science = 747, Scopus = 877, Google Scholar = 2908)
- Jozef Baruník (Web of Science = 655, Scopus = 748, Google Scholar = 1200)

In addition, extra 7 faculty members have 1000+ Google Scholar citations: Michal Bauer, Julie Chytilová, Zuzana Havránková (Iršová), Petr Jakubík, Karel Janda, Petr Teplý, Milan Ščasný.¹

¹ Note that the number of citations in WoS and Scopus vs. Google Scholar differ because it is customary in our field to cite also working papers which are included only in Google Scholar.

Strong standing at the international level

Shanghai Ranking's Global Ranking of Academic Subjects 2019 (ARWU 2019) ranks Charles University **76-100th** in the world in Economics and **151-200th** in the world in Finance. U.S. News Global Ranking of Universities 2019 ranks Charles University **111th** in the world in the area of Economics and Business. QS World University Ranking 2019 ranks Charles University as **201-250th** in the world in Economics and Econometrics. It is important to notice that all major global academic rankings consider Charles University as a single entity and therefore do not differentiate between IES and CERGE-EI as two partner subentities that both cover Economics and Finance.

To give a detailed idea on the position of IES independently on CERGE-EI, we can analyze the RePEc/IDEAS rankings. RePEc/IDEAS is global database in Economics which includes nearly 3 million items of research, more than 55,000 registered authors and more than 14,000 research institutions. The benefit of examining the RePEc/IDEAS rankings in that it provides a ranking of IES separately and compares it directly with other research institutions in the world. Also, RePEc/IDEAS rankings can be customized.

IES ranks among approximately **top 2%** institutions in the world when considering all publications by all authors. (It ranks 292 as of 14389 registered institutions as of August 21, 2019, rankings are updated daily; for comparions, CERGE-EI ranks 322.) Second, IES ranks among the **top 1%** institutions in the world when considering publications in the last 10 years by all authors. (IES ranks 113 out of 14389; CERGE-EI ranks 265.) This result shows that our research performance further improved during the last 10 years. Third, IES ranks among the **top 2%** institutions in the world when considering publications of top 10 authors from each institution in all years. (IES ranks 277 out of 14389; CERGE-EI lies outside of top 10% .) Fourth, IES ranks among the **top 1%** in the world when considering publications in the last 10 years for top 10 authors from each institution. (IES ranks 83 out of 14389; CERGE-EI ranks 306.).

In comparison to peer institutions, Katholieke Universiteit Leuven ranks among top 1%, Universität Heidelberg – top 2%, Universität Wien – top 2%, Universiteit Leiden – outside of top 10% (rankings are released only for top 10%), Uniwersytet Warszawski – top 2%, Università degli Studi di Milano - outside of top 10%, Københavns Universitet – top 1% when we consider publications in last 10 years from all authors. We are aware that the rankings have various limitations, but we still find them useful to provide at least a rough comparison.

Dominance at the national level

Research at Charles University, thanks to joint efforts of IES and CERGE-EI, dominates at the national level. This can be demonstrated using RePEc/IDEAS rankings for research institutions in Economics in the Czech Republic. Currently, IES ranks as **No. 1** marginally ahead of CERGE-EI out of 30 registered Czech institutions (as of August 20, 2019; see https://ideas.repec.org/top/top.czech.html). RePEc/IDEAS also provides a ranking of individual authors affiliated with Czech research institutions. Out of 421 registered authors, 5 researchers affiliated with IES and 4 researchers affiliated with CERGE-EI are among top 10 authors (as of August 20, 2019).

We may also document our position using evidence collected by the Czech think tank IDEA at: https://ideaapps.cerge-ei.cz/Hodnoceni2016/ An online application on this website calculates research performance based on the Web of Science publications, where the journals are ranked according to the Article Influence Score. The website counts how frequently the Czech research institutions publish in top 10%, top 25% and top 50% journals in the years 2011-2015. The application confirms the dominance of Charles University at the national level. Namely, the national share of IES is 28% for top 10% journals and 29% for top 25% journals. These shares are also very similar also for the year 2017 (27% for top 10% journals and 26% for top 25% outputs), covered by an update here: https://ideaapps.cerge-ei.cz/Performance2017/

Even more strikingly, in the field of Finance (category Business-Finance in WoS), the share of IES in 2017 is **100%** for top 10% journals and **100%** for top 25% journals. These figures demonstrate that IES is among dominant research institution in Economics and Finance at the national level.

3. RESEARCH POLICY AND MANAGEMENT

Comprehensive system of research evaluation

In 2012, we have adopted a comprehensive evaluation of research performance that is very close to the Requirements for Tinbergen Institute Research Fellows. We have adopted the system for the period of five years (2012-2016); the system was then slightly modified and the current system is effective for the period 2017-2021. In 2020, we will be discussing possible modification of the system for the next 5-year period 2022-2026.

The system ranks journals based on the Article Influence Scores (AIS) from the Web of Science. We find the AIS preferable to simple impact factors for various reasons (i.e., eliminating the role of possible cross-citations among friendly journals, reflection of the journal position in the entire network, emphasis on excellence, across different fields, and stability over time). Details are published in the following guideline: http://ies.fsv.cuni.cz/default/file/get/id/30160

In short, journals are categorized into 8 tiers:

- A++: Top 5 journals in Economics and Top 3 in Finance (American Economic Review, Econometrica, Journal of Finance, Journal of Financial Economics, Journal of Political Economy, Quarterly Journal of Economics, Review of Economic Studies, Review of Financial Studies)
- **A+**: 2.5 or higher AIS
- A: 1.5-2.49 AIS
- **B**: 0.8-1.49 AIS
- **C**: 0.5-0.79 AIS
- **D**: 0.3-0.49 AIS
- **E**: 0.1-0.29 AIS
- **F**: others

Each tier implies a specific amount of points:

- **A++**: 400 AIS points
- **A+**: 200 AIS points
- **A**: 100 AIS points
- **B**: 60 AIS points
- **C**: 40 AIS points
- **D**: 20 AIS points
- E: 10 AIS points
- **F**: 0 AIS points

For illustration, A+ journals include journals such as *Journal of the European Economic Association*, *Journal of International Economics* or *Journal of Monetary Economics*. A journals are journals such as *International Economic Review* or *Journal of Money, Credit and Banking*. B journals are well-established highly selective journals such as *World Development, Economic Inquiry, Journal of Banking and Finance, Journal of Corporate Finance*, or *Journal of Economics Behavior and Organization*. C journals contains well-established field journals such as *Economics Letters, Macroeconomic Dynamics, Public Choice* or *Cambridge Journal of Economics*. For

illustration, the A++ and A+ category largely coincide with the top decile of journals ranked according to the AIS. Top quartile (Q1) includes the A category and selected journals from the B category. The rest of B category and C category form the Q2.

To give a brief idea, the following table summarizes distributions of articles in the most prominant journal tiers (AIS 0.5+ in Web of Science) in 2014-2018 in the fields of Economics and Business-Finance.² It is important to emphasize that nearly all faculty members publish in these highly selective journals and therefore, it is not the case that good publication standards are limited to a narrow subset of top researchers. The full list of the articles is available here: http://ies.fsv.cuni.cz/en/node/60

Table 1: Publication record of IES researchers by journal category, 2014-2018

Category	2014	2015	2016	2017	2018
A++	0	0	1	0	0
A+	1	2	1	1	1
A	0	1	3	2	3
В	7	12	4	9	13
С	2	6	2	2	0

Our system also adjusts the points for the number of co-authors, but not proportionally such that formation of larger teams is encouraged. Also, it makes a distinction between a local coauthor and foreign coauthor to explicitly encourage collaboration with coauthors not affiliated with the Czech institutions. It discounts surveys, letters, and papers and proceedings.

Research evaluation policy also treats books and book chapter. Only books and book chapters on the most recent Tinbergen Institute's List of Publishers are eligible for so-called Book points.

As a result, the system motivates the researchers to publish in **highly selective** or **top field journals** and strongly discourages to publish in local journals even if enlisted in the Web of Science. (Note that the nearly 10% lowest-ranked journals carry zero AIS points.) The system therefore strongly promotes excellence and investments into excellence. In addition, the research evaluation system promotes more cooperation with the co-authors affiliated with the foreign academic institution rather than with domestic co-authors which indirectly helps to level the quality of the research activities.

The research evaluation policy affects (i) career prospects, (ii) annual bonuses and (iii) the availability of research package. We will discuss implications for the career prospects in Section 5 below. The financial bonus is set as a multiple of AIS points, where the management strives to keep the value of the AIS largely stable overtime to ensure predictability. The research package is discussed in Section 6.

Internationalization of the environment

We promote internationalization in several ways:

1) As noted above, our research evaluation system directly motivates the researchers to cooperate with foreign rather than domestic co-authors.

² Notice that these figures are based only on Economics and Business-Finance categories. Therefore, publications in *Proceedings of the National Academy of Sciences, Psychological Science* or *Nature Energy* are not included in the table. This includes 2 A+, 3 A, 15 B and 9 C arctiles in the period 201-2018. These journals are also assigned AIS points, only with a 50% discount; for details, see the guideline. For a list of our major articles in closely related fields, see: http://ies.fsv.cuni.cz/en/node/60

- 2) We organize, albeit infrequently, research seminars. In 2018, we hosted 12 researchers including speakers from the University of Oxford, London School of Economics, and University of Bocconi.
- 3) We also organize international conferences or workshops, approximately one event per year. For example, we organized MAER-Net 2015 Prague Colloquium, an international meeting of scholars who specialize in meta-analysis. We also organized the Econophysics Colloquium 2015, a traditional international conference gathering researchers from the interdisciplinary science of econophysics formed on the intersections of economics, finance, physics, complex systems, computer science and other branches of science. In 2016, we organized the conference "Challenges for Financial Stability in Europe" jointly with the Czech National Bank, leading to a special issue in the *Journal of Financial Stability*. We also co-organized a five-day seminar for doctoral students jointly with Humboldt University in Berlin in 2018.
- 4) We invite senior scholars from prestigious academic institutions to teach brief courses. Recently, the courses have been taught by faculty from Princeton University, Oxford University, University of Cambridge, University of Toronto, University of California, Berkeley, University of California, Irvine and many others. Some of these courses are taught regularly every year.
- 5) We try to hire on the international market. Our faculty currently include PhD graduates of Bologna/Rotterdam University, Cornell, CERGE-EI, and University of Iowa. For example, we have hired a graduate from Université Paris 1 Panthéon-Sorbonne for a two-year post-doctoral position in 2018. Faculty with a PhD granted outside of our institution clearly bring in their connections from their PhD-granting institutions.
- 6) We work on international placement from our doctoral program. Many of our alumni from the doctoral program choose careers in central banks or international organizations (e.g., European Central Bank, European Stability Mechanism, EIOPA), but we also keep improving academic placement. The best placement is in 2017 when our graduate became Assistant Professor at Barnard College, Columbia University. In 2015, we had a placement in Wageningen University; the graduate is now Assistant Professor at King's College London.
- 7) The institute helps to co-finance long-term academic visits of faculty members and Ph.D. candidates into top universities. See details in Section 4.

Organization and promotion of doctoral studies

Doctoral students are strongly incentivized to publish. In fact, many of the faculty publications are joint work with doctoral students as doctoral students cooperate closely with their supervisors. Doctoral students have to date co-authored research with our faculty in some highly selective journals such as *Journal of International Economics, European Economic Review*, and *Journal of Financial Econometrics*. The journals above are exceptional, but a typical doctoral student finishes her or his studies with publications in good field journals such as *Quantitative Finance, Economic Systems* or *Open Economies Review*.

RePEc/IDEAS rankings can be used to demonstrate impact of research of our PhD graduates. The database involves a ranking of PhD graduates according to the year of graduation (https://ideas.repec.org/top/top.cohorts.html), primarily based on the numbers of publications and citiations. For each year, the ranking of top 10 graduates is released. Among the economists, which received their doctoral degree in 2008, our Ph.D. graduate (Horvath) is ranked 7th in the world. Our 2013 graduate (Havranek) is ranked 1st, and another 2013 graduate (Kristoufek) is ranked 10th. Our 2015 graduate (Irsova-Havrankova) is also ranked 1st in the world among those graduated in 2015. Our 2018 graduate (Rusnak) is also ranked 1st. Despite limitations of various ranking, we are clearly excited to see these names among those that graduated from top universities.

Open Access

As a service to the local academic community, we keep publishing the *Czech Journal of Economics and Finance* (CJEF), which is a journal with a tradition of nearly 70 years. The journal has a Web of Science impact factor for nearly two decades. The journal is published as open access by our institute. To a certain extent, we consider this journal as a service to the research community in Central and Eastern Europe, given that it edits and publishes research of many researchers from Central and Eastern Europe at their early stage of career. (Publishing of our faculty members is discouraged and the journal in our internal ranking is classified E.) We also value its tradition given that many important Czech economists served as the editors and contributors to the journal in the past. The journal is currently edited by an experienced team of editors from IES, University of Strasbourg, Zeppelin University, and New Zealand Treasury. Editorial board includes professors from City University of New York, Paris School of Economics, Fordham University and other institutions.

Our working paper series is also available freely. We distribute the journal and our working paper series through many channels including RePEc/IDEAS databases.

Involvement in the international research community

More senior faculty serve as Associate Editors and Editorial Board members in several international journals, such as *Journal of Financial Stability, Journal of Economic Surveys, Open Economics Review, Economics E-Journal, Journal of Economic Interaction and Coordination, Review of Economics - Jahrbuch für Wirtschaftswissenschaften, Emerging Markets Finance and Trade, Frontiers in Physics and Digital Finance* and in 2014-2018 period also *Economic Systems*.

In addition, we have a program that facilitates long-term visits at global top universities such as Harvard University, Columbia University, and the University of California, Berkeley. Approximately 10 researchers (including doctoral students) per year can pursue long-term research visits (typically semester or a half of a semester) thanks to this program. Approximately 5 IES researchers per year take long-term stays within this program. This is due to funding from *H2020-MSCA-RISE-2015: Maria Skłodowska-Curie Research and Innovation Staff Exchange* on Global Excellence in Modelling of Climate and Energy.

Many of our researchers are members of various associations such as the *American Economic Association* or *European Economic Association*; some are also members of more specialized international research networks. Senior faculty have recently served on the Executive Boards of *Association for Comparative Economic Studies* (Professor Kocenda in 2014-2016) and *European Association of Comparative Economic Studies* (Professor Horvath in 2014-2016). Two of our faculty (Bauer and Chytilova) are affiliated with the Centre for Economic Policy Research (CEPR).

Internal evaluation

To existing colleagues, our research policy provides strong financial motivations but otherwise gives full freedom to conduct research on topics according to their preferences and state of the art in their fields. Research topics are not centrally set at the level of the management, but arise endogenously given the existing curricula, human capital and preferences of doctoral students. Only for new colleagues, the management directly influences the choice of research topics through hiring based on preferred fields or subfields.

Internal research evaluation is conducted (i) with respect to academic promotion as described in details in Section 5, and (ii) when adjusting performance part of the contract.

4. RESEARCH FUNDING

Institutional research funding is primarily used to cover wages for faculty and annual bonuses for research performance. Type of contract (lecturer vs. tenure-track or tenured faculty member) affects to what extent the wage is supported by institutional research funds. Also, successful researchers receive a large performance part of the contrast. Annual bonuses for research performance (see Section 3) are calculated irrespective of the type of the contract.

Individual researchers are strongly encouraged to apply for research grants both nationally and internationally. In 2014-2018, our researchers obtained 3 research grants funded by the European Union.

- We received the research grant "Economic Modeling for Climate-Energy Policy" in 2014-2017 within the program FP7-PEOPLE Specific program "People" implementing the Seventh Framework Programme of the European Community for research, technological development, and demonstration activities. We led the consortium of universities with the total budget of this grant was € 821 300, with the EU contribution to the Charles University of € 337 800.
- Next, we have received "Global Excellence in Modelling of Climate and Energy" within the program H2020-EU.1.3.3. Stimulating innovation by means of cross-fertilisation of knowledge. This research grant was a follow-up to the successful "Economic Modeling for Climate-Energy Policy" grant. The overall budget of this grant is € 3 330 000, with the EU contribution to the Charles University of € 1 174 500. As described above, these research grants allowed our researchers to pursue long-term research visits at top universities such as Harvard University, Columbia University and University of California, Berkeley.
- Finally, we received the "COFFERS Combatting Fiscal Fraud and Empowering Regulators" grant within the program H2020-EU.3.6.1.1. The mechanisms to promote smart, sustainable and inclusive growth. The project is coordinated by the Utrecht University and we serve as one of participating institutions. The overall budget of this project is € 4 986 989, with the EU contribution to the Charles University of € 198 475.

Regarding the domestic research grants, researchers typically apply for the Grant Agency of the Czech Republic – GACR or Technological Agency of the Czech Republic – TACR. Our researchers are highly successful in obtaining both kinds of the grants. Our colleagues have received **13 GACR research grants** in 2014-2018 (and additional 9 GACR grants, which started before 2014 but did not finish earlier than 2014), where they served as principal investigators.

Additionally, we were a part of a consortium of five institutions (IES FSV UK, CERGE-EI, Institute of Information Theory and Automation, Czech Academy of Sciences and two faculties of University of Economics, Prague), which received a so-called GACR Excellence grant (Dynamic Models in Economics - GBP402/12/G097). This grant lasted from 2012 to 2018, and its total budget was 112 million CZK.

Occasionally, we manage to attract funding from private funds and funds from international organizations to pursue applied research. In 2014-2018, European Commission supported two our projects in health economics and labor economics.

Finally, at the level of Dean, a financial bonus for the preparation of research proposal and grant applications serves as extra encouragement. There is also additional support during the existence of grant where 25% of the overhead can be returned to the principal investigator.

5. PERSONNEL POLICY

Career rules

Since 2015, we have explicit rules for promotion in the form of a guideline on promotion and workload: http://ies.fsv.cuni.cz/default/file/get/id/28644 This detailed document stipulates the career promotion, workloads, tenure track requirements, and other details. The document is publicly available. First of all, the document defines the main positions: Assistant Professor, Associate Professor, Professor and (non-tenure track positions) Junior/Senior Lecturers. Other positions include Visiting Professor, Research Fellow, Post-Doctoral Fellow, Adjunct Lecturer, and Professor Emeritus.

Regarding the tenure track, the only position which is subject to tenure track is Assistant Professor. The position lasts at most 7 years. Short extensions are offered to compensate for maternity leave and long-term administrative work. Each Assistant Professor is fully responsible for his or her academic promotion procedure. It is expected that the promotion package is submitted in the sixth year of the contract at the latest. At the Faculty of Social Sciences, academic promotion (doc.) is up to the Scientific Council of the Faculty of Social Sciences. Upon request, the Director provides a letter including all performance measures about the candidate to the Promotion Committee established by the Scientific Council, including a statement about the numbers of AIS points and teaching points and whether the performance criteria (see below) have been fulfilled or not. This letter effectively serves as a letter of support from the Institute.

The performance criteria for the Institute are as follows:

- 1) Research performance: Minimum 120 AIS points from Economics or Finance and 200 AIS points in total. (For illustration: Suppose a researcher has one local co-author in each paper. Then, to achieve 200 AIS points, the individual needs 4 publications in *Journal of Money, Credit and Banking* or 7 publications in *Economic Inquiry* over 7 years.)
- 2) Teaching performance: Minimum of 2,000 teaching points (the points depend on the course credits, number of students, language of the course and frequency of lectures). Teaching points must be accumulated by teaching at the Institute of Economic Studies. AIS points can be accumulated from other institutions.

During the fourth year at the latest, each Assistant Professor is expected to consult on her or his progress with the Director and respective Head of Department (as an informal midterm review). In the absence of promotion or extension, an Assistant Professor can be offered a contract as a Senior Lecturer.

The structure of the workload differs according to the position. For example, Assistant Professors are expected to be a bit more active in teaching and undergraduate and Master theses supervision, while Associate and Full Professors are expected to be more involved in the supervision of Ph.D. theses. Teaching workload is reduced for the faculty members with administrative duties (Director, Director for Research, Academic Program Directors, etc.) and they also receive a fixed compensation for this service with its level set by the University.

The salaries are regulated by the University and consists of fixed and performance portions. The boundaries of the fixed portion are given by the University regulations. The performance portion is influenced by the research performance (as measured by the AIS points), teaching quality, the number of supervised students, and pro bono activities. It is recalculated typically every three years and performance in the last five years counts.

The career rules also stipulate the conditions for the sabbatical.

6. INFRASTRUCTURE FOR RESEARCH

Access to all main sources of academic information – especially the access to the journal articles from main publishers – is secured at the university level. Access to specific software (Stata etc.) and databases with economic and financial data (such as CRIBIS, MagnusWeb, Bank Focus, Emerging Markets Information Service and Thomson Reuters/Refinitiv Eikon with Datastream) is secured at level of the IES.

Research package

IES has a policy which covers research-related costs for research-active faculty. Each core faculty member is eligible for the research package of 60 000CZK yearly subject to the following conditions: (i) 50+% contract, and (ii) 70+ AIS points for the Institute over the last 5 years. For new employees, zero AIS points are required in Years 1 and 2, and 40 AIS points are required in Years 3 and 4. The package is partially transferable to the next year.

7. SOCIAL IMPACT OF RESEARCH

Given that our research often leads to policy implications, we co-operate with a number of organizations which have a policy or social impact. In general, regarding policy implications, we are active in three main areas: 1) monetary economics, 2) public finance and 3) development economics.

Monetary Economics: Prof. Horvath was appointed as the member of the European Parliament's Monetary Experts Panel in 2015-2019. The members of panel prepare (publicly available) briefing papers for the Monetary Dialogue, which involves quarterly testimony by the President of the European Central Bank to the ECON Committee of the European Parliament on the current economic situation and key monetary policy issues. Prof. Horvath prepared five briefing papers on key economic issues in Europe (such as the effects of Brexit, the consequences of financial market fragmentation or side effects of unconventional monetary policy).

Public Finance: Petr Jansky regularly collaborates on research with various international organizations, including European Parliament and United Nations, especially on topics related to tax havens and financial secrecy. He has been invited to present his research at high-level policy forums such as the European Parliament's TAX3 Committee, United Nations Office on Drugs and Crime and the United Nations Conference on Trade and Development. His research outputs have been discussed in leading international media, including The Economist, Wall Street Journal and New York Times. Together with his research co-authors, he has developed Sustainable Development Goals' target for illicit financial flows, on which they advised the United Nations Conference on Trade and Development and the Economic Commission for Africa of the United Nations.

Development Economics: The team of Michal Bauer and Julie Chytilova conducts research on the key societal issues such as poverty, violence, ethnic hostility or discrimination using experimental economics methods. Using actual data from conflict regions, their research showed how inter-ethnic conflicts often escalate rapidly or how child soldiering in Africa affects social capital. Their research often attracts interest of domestic and foreign media and is well received by international organizations such as the World Bank.

We also have researchers active in health economics and labor economics conducting research with societal impact. Jana Votapkova's research on efficiency of hospitals has attracted citations from the OECD. Research on employment patterns of young women by B. Pertold-Gebicka was funded and discussed with the European Commission.

The research is regularly discussed by international organizations and top policymakers. To summarize, we provide a list of citations of our research by international organizations in 2014-2018 (cited in the format of institution, title, years, the full references available upon request):

- International Monetary Fund: Global Financial Stability Report (2014),
- World Bank: World Development Report (2015, 2017),
- OECD: OECD Economic Surveys: Czech Republic (2016, 2018),
- European Parliament Research Service: EU summer-time arrangements under Directive 2000/84/EC: Ex-post impact assessment (2017),
- European Commission: Structural Reforms in Spain (2018), OECD: Investment Policy Reviews (2017),
- OECD: International Productivity Monitor (2017),
- International Monetary Fund: Fiscal Monitor (2016),
- World Bank: Making Global Value Chains Work for Development (2016),
- US Congress: Congressional Research Service: Consumption Taxes: An Overview (2016),
- United Nations Economic Commission for Africa: Base Erosion And Profit Shifting In Africa: Reforms to Facilitate Improved Taxation of Multinational Enterprises (2018),
- United Nations: Report of the Inter-agency Task Force on Financing for Development (2018),
- United Nations Economic Commission for Africa: A study on the global governance architecture for combating illicit financial flow (2018),
- OECD: Global Outlook on Financing for Sustainable Development 2019: Time to Face the Challenge (2018),
- United Nations: Report of the Inter-agency Task Force on Financing for Development (2018).

In addition, our research has been cited by leading policymakers in their speeches such as by John Williams (President, Federal Reserve Bank of New York) or Frank Smets (Chief Economist, European Central Bank). In total works of 10 faculty members and 3 PhD students were cited as above. See also: http://ies.fsv.cuni.cz/en/node/401

Awards

Multiple academic awards represent a form of indirect evidence of societal impact. In 2014-2018, our researchers obtained numerous awards at home and abroad. Bauer and Chytilova obtained *UniCredit & Universities Foundation Best Paper Award* in 2015 and *Exeter Prize* in 2017 (University of Exeter best paper published in the previous calendar year in a peer-reviewed journal in the fields of Experimental Economics, Decision Theory and Behavioural Economics). Chytilova is also a recipient of *Ministry of Education, Youth and Sports Award* in 2016 (an award for exceptional research) and *Kateřina Šmídková Award* in 2016 (an award for the best female researcher in Economics, granted biennially). Janda has received *František Běhounek Award* in 2017 (for promotion of the Czech research in Europe). Havránková obtained *Kateřina Šmídková Award* in 2018. We have also received a number of other local awards (the Czech National Bank, Energy Contest award, Otto Wichterle Award etc.)

8. STRENGTHS, WEAKNESSES, OPPORTUNITIES AND RISKS

Strengths

Research: We consider improvements in our research production over the last 10 years a remarkable success story. In the decade after 2000, publishing in international journals with impact factor was infrequent at IES. In fact, just ten years ago, the majority of publications of our researchers concentrated in leading local journals with an impact factor (*Prague Economic Papers, Czech Journal of Economics and Finance*, and *Politicka Ekonomie*). Publishing abroad was rare. For example, the international articles of our faculty in 2006-2008 were at the level of

Applied Economics Letters, Contemporary Economic Policy, Control and Cybernetics, Economic Systems, Eastern European Economics, Emerging Markets Finance and Trade, and Post-Communist Economies.

Compare this publication list with the list ten years later: *American Economic Review, Journal of the European Economic Association, Economic Journal* or *Journal of International Economics*. Also the level and quantity of citations in the two periods differ by an order of magnitude. Moreover, and most importantly, publishing in well-established field journals became a norm for nearly all faculty and is now a requirement for all tenure-track colleagues.

Team: As a young but already established team, the IES has a perspective of growth: 10 Associate or Full Professors are between 30-45 years. Also, the management of the institute has consensually set up all necessary strategic documents in the past years (career rules, research performance assessment, transparently distributed bonuses, etc.) and has standardized all processes related to research and teaching.

Weaknesses

Hiring on the international market is so far with only limited success. Although we were recently able to hire a graduate from Université Paris 1 Panthéon-Sorbonne for a post-doctoral researcher and a graduate from Bologna/Rotterdam University for a part-time position, many offers are turned down due to the wage gap between the Western Europe and Central Europe. Hiring internationally in the area of finance, where the wage gap is especially large, is nearly impossible for us.

In addition, all core employees have non-negligible administration duties given a small size of the school and growing administrative demands. This, on the one hand, contributes to the smooth functioning of the institute but significantly limits time available for research and teaching.

The number of internationally well-established full professors is still small. This issue is linked to our hiring limits in international markets, as we are effectively able to hire only in junior market. The size of our institute is small, causing certain difficulties in replacing the faculty and also making it difficult to achieve economies of scale in teaching.

Opportunities

Our key opportunity is in the possibility to benefit from the high global rankings (top 200 Finance, top 100 Economics according to the Shanghai Ranking's Global Ranking of Academic Subjects 2019) for international visibility.

We also consider the opportunity to establish ourselves as national leaders in new fields such as health economics, where unlike other schools in the Czech Republic, we have the advantage of being close to research at medical faculties of Charles University. There are also ample new opportunities in the broadly understood data analysis given our links to statisticians and applied mathematicians at Charles University.

Risks

As Economics is not preferred by the government (the field is among the *least* funded fields out of all fields!), funding of our institute strongly depends on having the number of students that achieves economies of scales. This is not easy to achieve when strict requirements are imposed on the students.

In addition, high-quality education that we provide to our students is enough for them to be admitted to highly selective programs abroad, and we find it a bit difficult to replace those missing students by other domestic students, e.g., from other Czech (or Slovak) universities where quantitative training in Economics is typically much less rigorous.

9. FUTURE PLANS

At IES, we have witnessed major improvements in the quality of research in 2014-2018 vis-à-vis, for example, 2004-2008. Still, there are many rooms for improvements.

Our specific and realistic plans for future improvements are as follows:

- We plan to expand our research seminar series to make it more regular, inviting relevant speakers to establish closer links with peer universities and to attract wider attention in the community.
- Relatedly to seminar series, we plan to organize more international workshops on the topics related to the activities of our research groups.
- We plan to work on reducing the administrative burden of our core researchers and more generally, we will strive to delegate more administrative duties to non-research or non-tenured staff if possible.
- We plan to be more active in supporting the placement of our graduates in international academia and international organizations.
- We will continue in careful hiring on the international market, reflecting of course our limited resources. Our aim is to hire colleagues that can conduct both fundamental as well as applied research with policy impact on the intersection between Economics and Finance.

Overall, to maintain and even strenghten identity of a research active school, we plan to continue and fine-tune the existing policies that supports excellent research at IES (evaluation scheme, performance bonuses, promotion requirements, and research package).

We prefer to implement the improvements gradually to become sure that the innovations are working and fit the needs of the Institute. Building solid international reputation of a small institution is a gradual process and we must be sure that we are spending our limited resources efficiently. In particular, we must bear in mind that our school currently survives only thanks to an effective combination of research and PhD supervision with other duties such as teaching of about 100 courses and annual supervision of about 140 undergraduate and Master theses.