The Past, Present, and Future of Economics: A Celebration of the 125-Year Anniversary of the *JPE* and of Chicago Economics

Introduction

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The *Journal of Political Economy* is celebrating its 125th anniversary this year. For that occasion, we decided to do something special for the *JPE* and for Chicago economics. We invited our senior colleagues at the department and several at Booth to contribute to this collection of essays. We asked them to contribute around 5 pages of final printed pages plus references, providing their own and possibly unique perspective on the various fields that we cover.

There was not much in terms of instructions. On purpose, this special section is intended as a kaleidoscope, as a colorful assembly of views and perspectives, with the authors each bringing their own perspective and personality to bear. Each was given a topic according to his or her specialty as a starting point, though quite a few chose to deviate from that, and that was welcome. Some chose to collaborate, whereas others did not. While not intended to be as encompassing as, say, a handbook chapter, we asked our colleagues that it would be good to point to a few key papers published in the *JPE* as a way of celebrating the influence of this journal in their field. It was suggested that we assemble the 200 most-cited papers published in the *JPE* as a guide and divvy them up across the contributors, and so we did (with all the appropriate caveats). Some chose to fea-

ture these centrally, some picked a few, and others ignored that list altogether. Some have chosen to provide an overview, some have chosen to give their perspective on the field or added a wish list of their own, some have zoomed in on one contribution in particular, and one of the authors actually added a new theorem, generalizing a previous key contribution. There was a large canvas to draw on, and we are pleased that our colleagues have explored all its corners, in their own and unique way, in the spirit of the multifaceted mosaic that our faculty represents within the subject of economics.

We asked that their contribution be about what the field has accomplished or about where the field might or should be going in the future. It is probably the nature of the beast that all chose a largely backwardlooking perspective, providing an overview of how the field has developed over time and how the JPE helped this process along by publishing some of the key ideas and key contributions. But hop on board and start reading! Because of the intended density of the summary, it then actually becomes quite a forward-looking piece. The speed at which the ideas fly by makes it hard to stop that train of thought at the present time and frontier: one immediately yearns to proceed and to do and learn more, once this flow has stopped. This then is the ultimate goal: to encourage new thinking and excellent, thought-provoking, and paradigm-shifting research, which will pave the way for a future and better understanding of economic phenomena and to have the JPE continue to participate in publishing those key contributions. When we were PhD students or young researchers, we wish we had had access to a dense overview of this sort. If you belong to that group, or if you are simply young at heart, and seek to read a researchstimulating piece, then this is our present to you.

There is no good and certainly no linear way of ordering these contributions. Printing technology still demands that the pieces be presented in some order: so here is ours, with all due apology. We have chosen to open with the most general, most bird's-eye, and most long-run of perspectives to then gradually "zoom in" toward the deep foundations and the essays discussing assignment problems as well as experimental approaches. We can hear the outcry already: wait, isn't economics all about assigning goods to agents? We share that concern. The reader is thus encouraged to browse, pick, read, and reorder to her or his heart's content.

Indeed, what could possibly be more general than general equilibrium theory? Hugo Sonnenschein reflects on the role of "Chicago and the Origins of Modern General Equilibrium" in his essay, juxtaposing the Arrow-Debreu Walrasian analysis to the excess demand function approach and discussing the role of preference orderings. Ufuk Akcigit writes about "Economic Growth," its crucial impact on the welfare of nations, and the crucial role of innovations for understanding the growth process itself. David Galenson complements this with the "Economic History" perspective, ex-

amining in particular the role of human creativity for innovations. He argues that conceptual innovators are young, while experimental innovators are, shall we say, experienced. Long-run growth requires the assignment of property rights and effective institutions for contract enforcement, issues intimately tied to the development of political institutions and political decision making, as Roger Myerson discusses in his essay on "Political Economics in the *Journal of Political Economy*." A crucial aggregate dimension of political choice is "Aggregative Fiscal Policy," as summarized by Nancy Stokey, highlighting in particular the role of government debt financing.

Zooming in a bit more on the shorter-run aggregate fluctuations and the international trade dimension is the topic in "Business Cycles and International Trade" by Harald Uhlig, emphasizing the role of rational expectations in particular. Greg Kaplan points out that the richer aspects of "Inequality, Heterogeneity, and Consumption" are "today . . . front and center in macroeconomics," building up to the analysis of general equilibrium models with heterogeneous households and aggregate shocks. These aggregate shocks expose households to risks, which need proper analysis with "Time-Series Econometrics in Macroeconomics and Finance," as Lars Hansen highlights, emphasizing in particular the role of consumption, permanent income, and asset pricing. The asset pricing aspects are then further elaborated on in the essay on "Asset Pricing: Models and Empirical Evidence" by George Constantinides, highlighting the role of preferences, and the piece by Eugene Fama on "Finance at the University of Chicago," narrating the transition to modern finance and the Chicagoled research on market efficiency, factor models, and the economics of organizations. Richard Thaler offers a different approach to thinking about financial markets, savings, and consumption in his discussion of "Behavioral Economics." He contrasts it with "price theory à la Chicago School led by the intellectual giants Gary Becker, Milton Friedman, and George Stigler," which indeed plays a central role in many of the other contributions here. He then questions whether the stock market can add or subtract, why there are noise traders, and why optional but then mandatory savings plans can help to increase savings.

The issue of "Corporate Finance" receives a more detailed treatment by Robert Vishny and Luigi Zingales in their contribution, organizing it around the Modigliani-Miller irrelevance proposition, agency costs, and the market for corporate control. Particularly important for all these financial dimensions is the banking and monetary system. Thus, Douglas Diamond, Anil Kashyap, and Raghuram Rajan write about "Banking and the Evolving Objectives of Bank Regulation," emphasizing the importance of liquidity provision and aggregate liquidity shortages for thinking about financial regulation. Liquidity is the topic at the heart of "Monetary Economics," which Fernando Alvarez summarizes, organized around the three

traditional functions of money. Robert Lucas reflects on his "Memories of Friedman and Patinkin," their perspectives on quantity theory as well as its juxtaposition or lack thereof to the Keynesian paradigmand its liquidity trap unemployment equilibrium.

This is naturally followed by a more in-depth examination of "Labor Markets" by Robert Shimer, taking a mostly macroeconomic perspective on the Phillips curve, search, labor supply elasticities, sectoral shifts, as well as contractual issues and their frictions. The more microeconomic perspective is the topic of "Chicago Labor Economics" by James Heckman, emphasizing the rigorous interplay between data and theory. He formulates the guiding principles of Chicago tradition that "theory is used to interpret data. Data are used to test theory. Understanding the mechanisms . . . is essential." This interplay between data and theory is likewise the key for Stephane Bonhomme and Azeem Shaikh, arguing to "Keep the ECON in Econometrics," an intended pun on Leamer's admonition to take the con out of econometrics. Showcasing that interaction, they discuss structural econometric models of the labor market, the marriage market, and partial identification. Derek Neal returns to the finer theoretical details of the labor market for understanding "Life Cycle Wage Dynamics and Labor Mobility," examining issues of life cycle investment in general human capital, life cycle wage growth, and the search for good matches. This naturally leads to the examination of "The Human Capital Approach to Intergenerational Mobility" by Magne Mogstad, giving central importance to two papers by Becker and Tomes, the first of which was published in the JPE. Human capital also plays a central role in Robert Topel's essay on "Health Economics," taking the perspective that health can be viewed as human capital. He notes that "net of medical expenditures, the value of increased life expectancy between 1970 and 2000 in the United States" equaled "a flow of about \$2 trillion per year," thus emphasizing the quantitative importance of this topic. Providing a different perspective on the issues arising in labor market contracts or contractual issues more generally is the aim of "Agency Issues" by Canice Prendergast. He starts from a theoretical perspective, relating pay to performance, points out that "most people do not get paid this way," and then moves to discuss other motivations such as career concerns. Effectively echoing the guidelines by James Heckman, Stephane Bonhomme, and Azeem Shaikh, he bemoans the "paucity of empirical work" to complement these theoretical insights. Long-term contracts often are solutions in environments, featuring asymmetric information and associated incentives. "Information Economics" is the theme of Emir Kamenica's essay. He points out that additional issues such as information acquisition and communication arise and that information design is poised to complement mechanism design, when thinking about arrangements between agents.

Turning from labor markets to goods markets, Michael Greenstone traces "The Continuing Impact of Sherwin Rosen's 'Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition," emphasizing the power of the paradigm as well as the substantial empirical challenges in utilizing it, met with increasing, but as-of-yet incomplete, success by the "credibility revolution" of exploiting quasi-experimental variation, starting in the late 1990s. Price systems ultimately serve the goal of assigning goods to individuals. As Phil Reny shows in his piece on "Assignment Problems," these can be quite thorny, in particular if no monetary transfers are allowed or if individual preferences over goods exhibit complementarities. For that, he discusses an important result by Eric Budish, published in the *IPE* in 2011, and then extends it to allow for arbitrary preferences and both divisible and indivisible goods, providing a new theorem and its proof. A particularly important mechanism of assigning goods to buyers is auctions. Ali Hortaçsu therefore summarizes the literature on "Auctions in the Journal of Political Economy, 1894–2017." He highlights the literature on the auctioning of government land, the wireless spectrum, Treasury securities, and electricity, pointing to the issues arising from complementarities and potential collusion. A decidedly less desirable procedure for assigning goods results from criminal activity. Thus, the underlying economic motives as well as methods for deterrence are the focus in "The Economics of Crime," described by Steven Levitt. He emphasizes how that literature has taken an empirical turn in recent years, exploiting natural experiments, and that many questions remain open. A common theme in this as well as many of the other essays is that data are sorely needed to examine and test existing theories or to develop these theories further, but that it may be hard to find such data in the first place. Conducting experiments, in particular experiments in the field, to generate such data should then prove particularly compelling, as John List argues in his essay "Experimental Economics in the Journal of Political Economy." He discusses how experiments have already proven useful to examine market institutions and individual choice, and how these experiments moved from the lab to the field and a natural setting, deepening our understanding of the underlying phenomena.

The *Journal of Political Economy* and the University of Chicago are proud to have been active participants in these exciting lines of inquiries over the years. The essays make clear that much has been accomplished but that much remains to be done. It is our hope and desire that the *JPE* will remain at the forefront of these new and exciting developments and that authors will continue to consider the journal as their outlet of choice for their path-breaking contributions. In that spirit, we are looking forward to the next 125 years.