# Tamás K. Papp

E-mail tpapp@ihs.ac.at Office: +43-1-59991-147

tkpapp@gmail.com Cell: +43-699-100-90390

Web tpapp.github.io

Blog tpapp.github.io/post Institute for Advanced Studies (IHS)

Software github.com/tpapp Macroeconomics and Economic Policy Group

Josefstädter Straße 39

Citizenship Hungary A-1080 Vienna, Austria

## **Appointments**

Researcher, Macroeconomics and Economic Policy Group (formerly Department of Economics), IHS

Sep 2009-present

### Education

Princeton University, PhD in Economics 2009
Princeton University, MA in Economics 2006
Budapest University of Economics, MA in Economics and Finance (with honors) 2004

### Fields of interest

Macroeconomics, Labor markets and search frictions, Bayesian econometrics, Numerical methods

### **Publications**

### "Frictional wage dispersion with Bertrand competition: an assessment."

Review of Economic Dynamics, 2013.

I examine whether a version of the Cahuc et al (2006) model can match the magnitude of wage dispersion, as measured by the ratio of the average and the lowest wage — the so-called *mean-min ratio* of Hornstein et al (2012). I find that the workers' bargaining power is a crucial parameter: the mean-min ratio strictly decreases in the bargaining power up to a point near 1/2 and is essentially flat thereafter, generating the same amount of wage dispersion as the canonical wage ladder model, which is a special case of the CPVR model. Consequently, this model can yield large wage dispersion only for low bargaining power on the workers' side. I show that the share of job-to-job transitions with wage drops is decreasing in the bargaining power, calibrate the latter to the former, and demonstrate that the CPVR model generates an empirically plausible amount of wage dispersion. I also show that negative wages arise when workers have no bargaining power, and discuss the implications for the empirical findings of Postel-Vinay and Robin (2002).

### Working papers

# "Couples' Time-Use and Aggregate Outcomes: Evidence from a Structural Model" joint with Almut Balleer and Monika Merz

We analyze the economic determinants of couples' decisions to allocate their available time across market work, home work, and leisure using the German Time-Use Surveys of 2001/02 and 2012/13. These data allow identifying actual couples who can be married or cohabiting. Specifically, we use Bayesian indirect inference to estimate a static model of couples' time-allocation decisions allowing for 'no market work' as a possible outcome. The model features intra-household and inter-household heterogeneity. Partners differ in their tastes for purchased consumption goods and non-market goods and activities as well as in their offered or earned wage rate. We use the estimated model as a lab for counterfactual exercises in the cross-section. We find own-wage and cross-wage elasticities of hours worked to be larger for females than males, and that the extensive margin of adjusting employment is quantitatively more important than the intensive margin. We also aggregate preferences and wages by gender and compare outcomes for a stand-in couple with those from heterogeneous couples. We find that preferences rather than wages are the prime determinant of labor-leisure choices in the aggregate, especially for females.

#### "The structure of labor market flows"

We show that a general class of frictional labor market models with a participation margin and an individual-specific state can only match labor market transition rates within a certain range, which we characterize analytically. Transition rates in the data are outside the range the model can match, which explains the failure of previous papers to calibrate to these flows. We also examine whether extending the model can bring it closer to the data, and find that endogenous search intensity and state-dependent separation rates do not help, but misclassification, persistently inactive workers, and modifications of the productivity process such as learning on the job can match the gross flows.

### "Consistent local approximation in continuous time"

Analysis of the approximation method of Den Haan, Kobielarz, and Rendahl (2015) and Levintal (2016), applied to the deterministic Ramsey model in continuous time. I show that while the method is easy to set up, solving the nonlinear system requires nontrivial methods for even a simple system, and once solved, the resulting residuals of the Euler equation are large compared to collocation methods, but still small enough in absolute magitude to make the model useful in practice, especially for making an initial guess about functional forms in collocations methods.

# "Accounting for the Cyclical Volatility of Wages" joint with Alisdair McKay.

We demonstrate that wage volatility, measured as the cross-sectional variance of wage changes in PSID data, is counter-cyclical. We quantify this relationship by estimating the re- gression coefficient of wage volatility on the national unemployment rate in a multilevel Bayesian model, then decompose this coefficient into three main factors. During a recession, wage volatil- ity increases substantially among those workers experiencing spells of unemployment: the cycli- cal changes in the variance within this group explain about 55% of the cyclical variation in wage volatility. The variance within the group not experiencing unemployment explains 18%. Finally, an increase in the fraction of workers experiencing unemployment explains 25%. We show that a calibrated search-and-matching model of the labor market with on-the- job search gives a good account of the cyclical variation in idiosyncratic wage risk among those experiencing unemployment and of the composition effect over the business cycle. We show that in our model, this result is driven mostly by fluctuations of the reservation wage in response to labor market conditions.

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### Presentations

2016 — EALE (Ghent)

2015 — ESSIM (Tarragona), EEA (Mannheim), Conference in honor of Christopher Pissarides (Paris)

2014 — Search and matching conference (Edinburgh)

2013 — European Summer Symposium in International Macroeconomics (Ismir)

2012 — SED (Cyprus), European Workshop in Macroeconomics (Vienna), New Developments in the Macroeconomics of Labor Markets (Richmond)

2011 — NORMAC (Smögen), Labor Market Institutions and the Macroeconomy (Nürnberg), CESifo Conference on Macroeconomics and Survey Data (München)

2010 — Federal Reserve Bank of Richmond

2009 — Federal Reserve Bank of Richmond, Centro de Estudios Monetarios y Financieros (Madrid), Institut für Höhere Studien, Centre de Recerca en Economia Internacional (Barcelona), London School of Economics, University of Cambridge, Institute for International Economic Studies (Stockholm), University of Amsterdam

### Professional activities

Referee: Macroeconomic Dynamics, Labor Economics, European Economic Review Google Summer of Code: mentor for Dorisz Albrecht (2017), Julia Organization

### **Grants**

2017 — Jubiläumsfonds grant (17378) of the Austrian National Bank

2015 — Jubiläumsfonds grant (16256) of the Austrian National Bank

2012 — Jubiläumsfonds grant (40516) of the Austrian National Bank

# Teaching experience

Institute for Advanced Studies (IHS)

Dynamic Optimization II: Numerical methods (Graduate Core), 2017

Macroeconomics II (Graduate Core), Spring 2012, 2013, 2014, 2015, 2016

Macroeconomics III (Graduate Core), Fall 2009, 2010, 2011

Computational Methods (Graduate Core), 2009-2014

Central European University (CEU)

Advanced Macroeconomics (graduate), 2013

#### *Princeton University*

Macroeconomics II (Graduate Core), Teaching Assistant to Christopher Sims

Money and Banking, Fall 2008, Teaching Assistant to Nobuhiro Kiyotaki

Macroeconomics: a mathematical approach, Spring 2008, Teaching Assistant to Noah Williams

Money and Banking, Fall 2007, Teaching Assistant to Nobuhiro Kiyotaki Macroeconomics, Spring 2007, Teaching Assistant to Per Krusell Macroeconomics (Graduate Core), Fall 2006, Teaching Assistant to Per Krusell and Noah Williams

Budapest University of Economics, Department of Mathematics

Mathematical Analysis, 2002–2004, Teaching Assistant Linear Algebra, 2002–2004, Teaching Assistant

### Honors and awards

Sveriges Riksbank Summer Research Fellowship, 2008 summer
IIES Stockholm, Visiting Researcher, 2008 summer
International Economics Section Summer Fellowship, Princeton University, 2006 summer
Princeton University Graduate School Fellowship, 2004–2008
Princeton University Graduate School Summer Fellowship, 2004–2008
Republic of Hungary Fellowship, 2000–2004, renewed three times
Fellow of the Invisible College (Hungary), 2001–2004

## Languages

English: fluent, Hungarian: native, Spanish: intermediate, German: basic

## IT / programming skills

Julia, IATEX, Common Lisp, R, C/C++, Git, Docker, general Linux administration

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