

Unemployment and Consumption Patterns: Evidence from a unique micro dataset

Camille Landais (London School of Economics)
Johannes Spinnewijn (London School of Economics)

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Unemployment shocks are characterized by a substantial drop in personal and/or household income. This drop affects consumption patterns and household finances (consumption on durables and non-durables, debt, collateral, credit riskiness, credit constraints, etc.). Given the magnitude of the income loss, the nature of these consumption responses has major implications at the aggregate level, for the transmission of shocks from the labor market to other sectors of the economy, and therefore, for the understanding of aggregate fluctuations in economic activity. It also has critical welfare implications, and is central to the design of optimal unemployment insurance policies.

Despite the importance of the topic, we know surprisingly little, empirically, about how consumption patterns are affected by unemployment and the length of unemployment spells. Nor do we know much about how credit constraints evolve over the time of an unemployment spell. The only available evidence is Gruber [1997] who shows using US survey data that food consumption drops during unemployment and Browning and Crossley [2001] who show using Canadian data that total household expenditures experience a decline at the moment a member of the household becomes unemployed. But we know very little about the timing of responses or about how consumption evolves over the unemployment spell. This might prove extremely important to understand consumption patterns in recessions as the duration of unemployment and the incidence of long-term unemployment tends to increase sharply. We also know nothing about the anatomy of the behavioral response (what type of consumption adjusts, does debt increase, etc.),

or about the heterogeneity of responses across households. Finally, we know very little about how unemployment insurance (UI) may mitigate the adverse effects of income losses incurred during unemployment.

The reason for the lack of empirical evidence is simply the lack of good data on household consumption and assets matched with precise information on employment. Our research project plans to bridge this gap in the literature. We will create a unique dataset, which merges at the individual level the universe of employment and UI records in Sweden with detailed income and wealth¹ information from the tax administration and direct consumption information from consumption surveys. The merge of these data sets allows us to study the evolution of household finances over the time of an unemployment spell.

There are several key innovations in our project. First, unlike existing studies, our study will be the first to have high-quality and detailed information on consumption, income, wealth and employment. This allows us to look directly at consumption profiles but also at asset and debt profiles to analyze the full response of household finances to the unemployment shock. The second innovation of our project is that by using precise administrative data on UI and quasi-experimental variation in the level of benefits brought about by the functioning of the Swedish UI system (Bennmarker et al. [2005]), we will be able to credibly identify the effects of UI on expenditure and debt over the unemployment spell. Finally, the last innovation of the project is to use this empirical evidence to provide practical recommendations on the time structure of UI benefits. This policy analysis builds on a simple, but robust characterization of the optimal profile of unemployment benefits that we have developed in the spirit of the sufficient statistics approach (Chetty [2009], Chetty and Finkelstein [2012]).

We have successfully completed the application process for the data, which will become available on June 30. The research grant will be used for acquiring the data, for research assistance and IT support. We will also have to travel to Sweden to organize the data and plan to disseminate our research in seminars and conferences in Europe and the US. We have included two appendices below. The first appendix provides more detailed information about the data set. The second appendix provides an itemized budget. We have included our CV's as well.

¹This is made possible by the existence of very precise wealth information collected in Sweden by the tax administration until the abolition of the wealth tax in 2007.

Appendix A: Data

Our project is based on the creation of a unique dataset spanning between 1991-2010 and merging three different data sources: (1) employment and unemployment registry data (2) asset and income information from the Swedish Tax administration and (3) consumption information from the household consumption surveys HUT. This is the very first time such information would be put together.

Employment and Unemployment data

The unemployment data in Sweden comes from the unemployment history data from the Swedish Public Employment Service (Arbetsförmedlingen). The two relevant data sets here are HÅNDEL and ASTAT (AKSTAT in the 1990s). The data contains weekly updated information on unemployment duration, date of registering as unemployed, eligibility to receive UI benefits, and earnings used to base UI payments on. It will be matched with LISA-data that contains yearly plant-level data on all workers that were employed at a plant some time during each year, irrespectively of being employed on a fixed-term or a permanent contract. This data set includes information on total annual earnings as well as the first and the last remunerated month for each employee, which enables us to construct monthly wage data by dividing total earnings during the year by the number of remunerated months. LISA also contains important background characteristics such as family situation, education, additional social benefits such as housing or social aid and place of residence.

Asset and income data from the tax administration

Up until 2007, Sweden levied a wealth tax. To establish who qualified, the Swedish tax authority had therefore the mandate to collect detailed information about each tax payer's holdings of financial assets, such as bond, stocks, mutual funds or simply balances of households' bank accounts. The data collection took place through the financial institutions. The collected data also contains information on coupon income from bonds and interest income from bank accounts. Since 1999 these data have been delivered to Statistics Sweden. The financial asset registry data (Fomogenhetsregistret) between the years 1999-2007 is merged with the national real estate reg-

istry (Fastighetstaxeringsregistret) which records every purchase or sale of a house or cabin, along with the transaction date and gives a detailed picture of household's real estate wealth. For details about the various data sources and how the registry data can be used to compute credible measures of consumption, see Kojen et al. [2013].

Consumption survey data

Consumption information comes from HUT, yearly household consumption surveys, that will be matched to the registry data using individual identifier (social security numbers). The relevant surveys are those made in 1992, 1995, 1996, 1999, 2000, 2001 and 2003-2009.

Appendix B: Budget

The research grant will be used for acquiring the data, for research assistance, travels and IT support. We are asking for a total budget of \$17,500. A detailed breakdown of the budget is provided below with explanations for the different budget lines.

- **Data acquisition: \$10,000**

The total cost for the data prepared by Statistics Sweden is \$21,000. We have already secured \$13,000 from our own research accounts and therefore need an extra \$8,000 to complete the purchase to Statistics Sweden. We are also including an extra \$2,000 to purchase additional variables / data along the way in case we need extra information or years of data.

- **Research assistance: \$5,000**

We need research assistance to organize the data. We are asking for 5 weeks full time (40 hours per week). The hourly rate for graduate student is 15 GBP \approx \$25. This means a total of $\$25 \times 200 \text{ hrs} = \$5,000$.

- **IT support: \$1,000**

- **Travels: \$1,500**

We will have to travel to Sweden to organize the data and plan to disseminate our research in seminars and conferences in Europe and the US.

References

- Benmarker, Helge, Kenneth Carling, and Bertil Holmlund, “Do benefit hikes damage job finding? Evidence from Swedish unemployment insurance reforms,” Working Paper Series 2005:22, IFAU - Institute for Evaluation of Labour Market and Education Policy 2005.
- Browning, Martin and Thomas F. Crossley, “Unemployment Insurance Benefit Levels and Consumption Changes,” *Journal of Public Economics*, 2001, 80 (1), 1–23.
- Chetty, Raj, “Sufficient Statistics for Welfare Analysis: A Bridge Between Structural and Reduced-Form Methods,” *Annual Review of Economics*, 05 2009, 1 (1), 451–488.
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- Gruber, Jonathan, “The Consumption Smoothing Benefits of Unemployment Insurance,” *American Economic Review*, 1997, 87(1), 192–205.
- Koijen, Ralph, Stijn Van Nieuwerburgh, and Roine Vestman, “Judging the Quality of Survey Data by Comparison with “Truth” as Measured by Administrative Records: Evidence From Sweden,” in “Improving the Measurement of Consumer Expenditures” NBER Chapters, National Bureau of Economic Research, Inc, October 2013.

Camille LANDAIS

**Department of Economics,
London School of Economics and Political Science**
Houghton Street
London WC2A 2AE
Phone : +44(0)20-7955-7864
E-mail : c.landais@lse.ac.uk
<http://personal.lse.ac.uk/landais/>

FIELDS

Public Finance, Labor Economics, Applied Microeconomics, Microeconometrics

POSITION

2012- **Assistant Professor in Economics** (a.k.a. Lecturer in the U.K.), **London School of Economics**

2010-2012 **Post-Doctoral Fellow, Stanford Institute for Economic Policy Research**

EDUCATION

2009-2010 **Visiting Student, University of California-Berkeley**

2005-2008 **PhD in Economics, Paris School of Economics (PSE), *Summa cum Laude***
Thesis : « *Essays in public finance: taxation, top incomes and household behaviours* »

Thesis committee: T. Piketty, A.B. Atkinson, B. Salanié

2000-2005 **Ecole Normale Supérieure (Ulm)**

HONORS, AWARDS & FELLOWSHIPS

2010 European Tax Policy Forum Grant

2009 Special Award for Best PhD Dissertation in Economics, French Economic Association (AFSE)
Russell Sage Foundation Research Grant

2008 French Ministry for Cultural Affairs: Research Grant
Young Economist Award, International Institute of Public Finance
Presidential Award, Russell Sage Foundation
Lavoisier fellowship, French Ministry of Foreign Affairs
CEPREMAP Research Grant
Best Econ Blog (for **Ecopublic**), *Challenges* magazine

2005-2008 Doctoral fellowship, French Ministry for Research

2000-2005 Ecole Normale Supérieure, Full fellowship

PAPERS & PUBLICATIONS

- Are Tax Incentives For Charitable Giving Efficient? Evidence from France, (with Gabrielle Fack), *American Economic Journal: Economic Policy*, 2(2): 117-41, 2010.
- Taxation and International Mobility of Superstars: Evidence from the European Football Market, (with Henrik Kleven & Emmanuel Saez), *American Economic Review*, 103(5): 1892-1924, 2013.

- Migration and Wage Effects of Taxing Top Earners: Evidence from the Foreigners' Tax Scheme in Denmark (with Henrik Kleven & Emmanuel Saez & Esben Schultz), *Quarterly Journal of Economics*, 129 (1): 333-378, 2014.
- Assessing the welfare effects of unemployment insurance using the regression kink design, *IZA Discussion Papers 7589*, Institute for the Study of Labor (IZA), R&R *American Economic Journal: Economic Policy*
- [Market Externalities of Large Unemployment Insurance Extension Programs](#) , (with Rafael Lalive and Josef Zweimuller), R&R *American Economic Review*
- Optimal Unemployment Insurance over the Business Cycle, (with Pascal Michailat & Emmanuel Saez) R&R *Review of Economic Studies*
- The Effect of Tax Enforcement on Tax Elasticities: Evidence from Charitable Contributions in France, (with Gabrielle Fack)

BOOK & CHAPTERS

- *Charitable giving and tax policy : a historical and comparative perspective*, (G. Fack & C. Landais eds), CEPR/Oxford University Press, *forthcoming*
- *Pour une révolution fiscale: Un impôt sur le revenu pour le XXIème siècle* (with T. Piketty & Emmanuel Saez), Seuil, Janvier 2011
- Cultural assimilation in France, (with Y. Algan & C. Senik), in *Cultural integration in Europe* , (Y. Algan & A. Manning eds), CEPR/Oxford University Press, 2011
- *Economie des politiques publiques* [Economics of Public Policy], La Découverte, collection Repères, 2010

OTHER PROFESSIONAL ACTIVITES

Refereeing activity:

AEJ: Applied Economics, AEJ: Economic Policy, American Economic Review, Economica, Econometrica, Economic Journal, FinanzArchiv, International Tax and Public Finance, Journal of Economic Surveys, Journal of Public Economics, Journal of the European Economic Association, Public Finance, Population Studies, Quarterly Journal of Economics, Review of Economic Studies, Review of Labour Economics and Industrial Relations, Socio-Economic Review

Seminars & Conferences

2014: AEA meetings, NBER Public Econ Spring meeting, Royal Econometric Society, Statistics Norway, Riksbank Stockholm, Aarhus

2013: CEP-LSE, Lausanne, Tinbergen Institute, Harvard Econ, NBER SI, CIREQ conference Montreal, Uppsala University, Hebrew University Jerusalem, PEUK, Warwick, Bristol, PUC Rio

2012: CREST-INSEE Paris, PSE, Columbia, NBER Public Economics Fall meetings, Zurich University, EALE Bonn, SOLE Chicago, Harris School U Chicago, PUC Rio de Janeiro, LSE, Wharton BPUB, IIES Stockholm, Polytechnique, Toulouse School of Economics, U Bocconi, UNIL Lausanne, Einaudi Institute Roma, UCLA

2011: IFS-UCL, Sciences-Po Paris, Paris School of Economics, Einaudi Institute Roma, UPF-Barcelona, USC, LSE-UCL Public Finance, NBER Spring Labor Meetings, NBER Public Economics Spring Meetings, UC Berkeley, Stanford Econ

2010: NBER Summer Institute, CEPR Public Policy Symposium, Stanford SIEPR, Oxford Said Business School, Stockholm School of Economics, PUC Rio de Janeiro

2008-2009: UC Berkeley, NBER Trans-Atlantic Public Economic Seminar, Institute for Fiscal Studies & UCL, International Institute for Public Finance Annual Congress, Paris School of Economics

OTHER

Languages : French (native), English (fluent), German, Italian & Portuguese (intermediate)

REFERENCES

Prof. Emmanuel Saez
UC Berkeley
549 Evans Hall #3880
Berkeley, CA 94720-3880, USA
510 642-4631
saez@econ.berkeley.edu

Prof. Raj Chetty
Harvard University
Littauer Center 226,
Cambridge, MA, 02138, USA
617-744-9492
chetty@fas.harvard.edu

Prof. Thomas Piketty
Paris School of Economics
48 Bv Jourdan
75014 Paris, France
+33 1 43 13 62 50
piketty@ens.fr

Prof. Caroline Hoxby
Stanford University
579 Serra Mall
Stanford, CA 94305, USA
650 725-8719
choxby@stanford.edu

JOHANNES SPINNEWIJN

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London School of Economics
Department of Economics & STICERD
Houghton Street
London WC2A 2AE

Phone: +44 (0)20 7955 7022
Fax: +44 (0)20 7955 6951
Email: j.spinnewijn@lse.ac.uk
<http://personal.lse.ac.uk/spinnewi/>

APPOINTMENTS

2009 – Present **London School of Economics and Political Science**
2009 – 2014 Lecturer in Economics
2014 – Present Lecturer (Assistant Professor) in Economics with Tenure
2014 Spring Visiting Professor KULeuven

EDUCATION

2009 **Massachusetts Institute of Technology**
Ph.D. in Economics
2004 **Universite Libre de Bruxelles**
M.A. in Economics
2003 **Katholieke Universiteit Leuven**
B.A. in Economics

HONORS AND GRANTS

2014 Austin Robinson Memorial Prize
2012 ESRC Grant, Public Finance and Development
2010 Distinguished CESifo Affiliate Award
2009 W.E. Upjohn Institute Dissertation Award
2004 – 2006 MIT Robert M. Solow Fellowship
2004 BAEF Fellow
2004 Francqui Fellow

OTHER AFFILIATIONS

2011 - Present Centre for Economic Performance – Research Associate
2011 – 2013 Economic Policy - Panel Member
2010 - Present CESifo – Distinguished Affiliate
2009 - Present Institute for Fiscal Studies - Research Associate
Centre for Economic Policy Research - Research Affiliate

PUBLICATIONS

"Unemployed but Optimistic: Optimal Insurance Design with Biased Beliefs" - forthcoming at
Journal of European Economic Association

2013 AEA San Diego, Copenhagen University, Edinburgh University, CEU
Budapest, University of Michigan, Stanford University, Bergen University,
Oxford University, London Business School, PEUK conference, IGC growth
week, ETH Zurich

2012 NBER Summer Institute, CPER Public Policy, IFS-STICERD, CREST, DIW
Berlin, Southampton University, Max Planck Institute Bonn

2011 CORE Louvain, Rotterdam University, LSE, Essex University, HEC Lausanne,
Zurich University, Uppsala University, Warwick University, CESifo

2010 ASSA Atlanta, Paris School of Economics, UC Berkeley, UC Davis,
Universiteit Antwerpen, ULB Ecares, Tel Aviv University, Hebrew University,
CESifo, Munich University, IIES Stockholm University, Pompeu Fabra,
Munich University, IRES Louvain

2009 Paris School of Economics, CES KULeuven, Oxford University, SITE
Economics and Psychology, CEPR Public Policy, Max Planck Institute,
Harvard University, NBER Public Finance, Tinbergen Institute, Maastricht
University, UCLouvain, INSEAD, London School of Economics, University
College London, Chicago Booth, Harvard Kennedy School, UPenn Wharton,
Stanford University, EEA-ESEM Barcelona

2008 Tilburg University, Toulouse School of Economics, EEA-ESEM Milan

2007 CES KULeuven

REFEREE ACTIVITY

*American Economic Journal: Economic Policy, American Economic Journal: Macroeconomics,
American Economic Journal: Microeconomics, American Economic Review, Economic Journal,
Fiscal Studies, Games and Economic Behavior, Journal of Economic Behavior and Organization,
Journal of European Economic Association, Journal of Labor Economics, Journal of Public
Economics, Journal of Public Economic Theory, Labour Economics, Management Science, Review
of Economic Design, Review of Economic Studies, Scandinavian Journal of Economics, Quarterly
Journal of Economics*

TEACHING

Public Economics (ec534), Public Economics (ec426), Contract Economics (ec301),
Microeconomic Analysis (ec101)