OXFORD

Longer-term Consequences of the Great Recession on the Lives of Europeans

Edited by
Agar Brugiavini
and Guglielmo Weber

f R
D B

A REPORT FOR THE FONDAZIONE RODOLFO DEBENEDETTI

Longer-term Consequences of the Great Recession on the Lives of Europeans

Reports for the Fondazione Rodolfo DeBenedetti

Ageing, Health, and Productivity
Edited by Pietro Garibaldi, Joaquim Oliveira Martins, and Jan van Ours

Brain Drain and Brain Gain: The Global Competition to Attract High-Skilled Migrants
Edited by Tito Boeri, Herbert Brücker, Frédéric Docquier, and Hillel Rapoport

Education and Training in Europe
Edited by Giorgio Brunello, Pietro Garibaldi, and Etienne Wasmer

Executive Remuneration and Employee Performance-Related Pay
Edited by Tito Boeri, Claudio Lucifora, and Kevin J. Murphy

Immigration Policy and the Welfare System
Edited by Tito Boeri, Gordon H. Hanson, and Barry McCormick

Structural Reforms Without Prejudices
Edited by Tito Boeri, Micael Castanheira, Riccardo Faini, and Vincenzo Galasso

The Great Recession and the Distribution of Household Income
Edited by Stephen P. Jenkins, Andrea Brandolini, John Micklewright, and Brian Nolan

The ICT Revolution: Productivity Differences and the Digital Divide
Edited by Daniel Cohen, Pietro Garibaldi, and Stefano Scarpetta

The Role of Unions in the Twenty-first Century
Edited by Tito Boeri, Agar Brugiavini, and Lars Calmfors

The Ruling Class: Management and Politics in Modern Italy
Edited by Tito Boeri, Antonio Merlo, and Andrea Prat

Women at Work: An Economic Perspective
Edited by Tito Boeri, Daniela Del Boca, and Christopher Pissarides

Working Hours and Job Sharing in the EU and USA: Are Europeans Lazy? Or Americans Crazy?
Edited by Tito Boeri, Michael Burda, and Francis Kramarz

Longer-term Consequences of the Great Recession on the Lives of Europeans

Edited by
Agar Brugiavini and Guglielmo Weber

With

Orazio P. Attanasio, Margherita Borella, Olympia Bover, Torben Heien Nielsen, and Elisabetta Trevisan

OXFORD
UNIVERSITY PRESS

OXFORD
UNIVERSITY PRESS

Great Clarendon Street, Oxford, OX2 6DP,
United Kingdom

Oxford University Press is a department of the University of Oxford.
It furthers the University's objective of excellence in research, scholarship,
and education by publishing worldwide. Oxford is a registered trade mark of
Oxford University Press in the UK and in certain other countries

First Edition published in 2014

Impression: 1

Published in the United States of America by Oxford University Press
198 Madison Avenue, New York, NY 10016, United States of America

British Library Cataloguing in Publication Data
Data available

Library of Congress Control Number: 2014931112

ISBN 978–0–19–870871–1

Printed and bound by
CPI Group (UK) Ltd, Croydon, CR0 4YY

Preface

This book is a substantially revised version of a report commissioned by Fondazione Rodolfo DeBenedetti (Milan) in 2010, and presented at its 13th European Conference in Palermo in September 2011, on the highly topical subject of "Incomes across the Great Recession". The title of our report was "Longer-term Consequences of the Great Recession on Income Distribution"—but given that in our research we investigate the effects of financial hardship episodes not only on income, but also consumption, life-time resources, and health we felt it appropriate to change it. We now talk about the "Longer-term Consequences of the Great Recession on the Lives of Europeans", but of course acknowledge that we do not cover all possible dimensions of life.

We would like to thank the Fondazione Rodolfo DeBenedetti for their support, especially its research director, Tito Boeri, whose encouragement and patience proved invaluable at all stages of the project. We are also extremely grateful to the wide community of researchers who are involved with us in devising, managing, and making available to researchers worldwide the Survey on Health, Ageing and Retirement in Europe (SHARE) that plays such a key role in this book. Interested readers are referred to the SHARE project web site (*www.share-project.org*), that contains a wealth of information, including the complete questionnaire of SHARELIFE, the innovative third wave of SHARE that collects life histories data and constitutes the backbone of the research presented here.

We also thank our conference discussants, Gianluca Violante and Till von Wachter, who provided us with insightful comments and suggestions based on a first draft of the report. In preparing this volume, we built upon many of their remarks, but also upon points raised by other Palermo conference participants as well as by the reviewers of this book. In particular, not only our discussants, but also Stephen Jenkins and Tito Boeri sent us detailed written comments that proved invaluable.

Agar Brugiavini
Guglielmo Weber
July 2013

Acknowledgements

This book uses data from SHARELIFE release 1, as of 24 November 2010, and SHARE release 2.5.0, as of 24 May 2011. The SHARE data collection has been primarily funded by the European Commission through the 5th framework programme (project QLK6-CT-2001-00360 in the thematic programme Quality of Life), through the 6th framework programme (projects SHARE-I3, RII-CT-2006-062193, COMPARE, CIT5-CT-2005-028857, and SHARELIFE, CIT4-CT-2006-028812) and through the 7th framework programme (SHARE-PREP, 211909 and SHARE-LEAP, 227822). Additional funding from the US National Institute on Aging (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, Y1-AG-4553-01 and OGHA 04-064, IAG BSR06-11, R21 AG025169) as well as from various national sources is gratefully acknowledged (see www.share-project.org for a full list of funding institutions).

Contents

List of Figures xi
List of Tables xiii
List of Contributors xv

Introduction 1
Agar Brugiavini and Guglielmo Weber

1. Anatomy of Financial Hardship 4
   Olympia Bover, Agar Brugiavini, and Guglielmo Weber

2. The Consequences of Financial Hardship (and Recessions) on Income and Welfare 38
   Orazio P. Attanasio, Agar Brugiavini, Elisabetta Trevisan, and Guglielmo Weber

3. Characterizing Income Shocks and their Transmission to Household Consumption 114
   Orazio P. Attanasio, Margherita Borella, and Torben Heien Nielsen

4. Conclusions 160
   Agar Brugiavini and Guglielmo Weber

References 175
Index 181

List of Figures

1.1	Hazard function of falling into financial hardship by age	7
1.2	Hazard function of exiting financial hardship by number of years	8
1.3	Share of individuals in financial hardship by year and country	9
1.4	Share of individuals in financial hardship by year and business cycle episode. Selected countries	13
1.5	Hazard function of exiting financial hardship by number of years and group of countries	32
1.6	Hazard function of exiting financial hardship by number of years and inflation	34
2.1	Male median earning profiles by age—younger than 65 years of age	45
2.2	Effect of financial hardship on log earnings	53
2.3	Median food share by age	58
2.4	Median permanent income by age—singles	64
2.5	Median permanent income by age—couples	66
2.6	Effect of financial hardship on health	73
3.1	Household earnings growth unexplained variance—ECHP	124
3.2	Disposable income growth unexplained variance—ECHP	125
3.3	Unemployment rates in selected countries—years 1990–2000	126
3.4	Permanent and transitory variances in the ECHP, disposable income, and earnings	127
3.5	Variance of transitory shock and unemployment rate in 1994 (top panel) and 1998 (bottom panel)	129
3.6	Average log income and log non-durable consumption, by cohort	134
3.7	Average log income and log non-durable consumption, by cohort	136
3.8	Mean income and mean (imputed) consumption profiles	138
3.9	Mean income and (imputed) consumption profiles (homeowners)	139
3.10	Mean income and (imputed) consumption profiles (renters)	139

3.11 Moments of income and consumption growth—baseline case—Spain 140
3.12 Moments of income and consumption growth—baseline case—Italy 141
3.13 Moments of income and total consumption growth—baseline case—Denmark 142
3.14 Evolution of permanent and transitory variances—Spain 144
3.15 Evolution of permanent and transitory variances—Italy 146
3.16 Evolution of permanent and transitory variances—Denmark 148

List of Tables

1.1 Hazard of falling into a period of financial hardship (logit coefficients) 17

1.2a Hazard of ending a period of financial hardship (logit coefficients) 22

1.2b Hazard of ending a period of financial hardship—including group of countries duration interactions (logit coefficients) 26

1.3a Probability of falling into financial hardship 29

1.3b Probability of exiting from financial hardship 33

1.A1 List of variables for the 'financial hardship' equation 35

2.1 Summary of results: OLS estimates of log earnings 49

2.2 Summary of results: OLS estimates of log earnings by groups of countries—men 50

2.3 Summary of results: OLS estimates of food share 62

2.4 Summary of results: OLS estimates of log permanent income. Singles 68

2.5 Summary of results: OLS estimates of log permanent income. Couples 69

2.6 Summary of results: Ordered probit estimates of self-reported health 72

2.7 Summary of results: OLS estimates of objective health index 75

2.A1 List of variables used in the analysis 79

2.A1a OLS estimates of log earnings. Sample of individuals below 65 years of age 80

2.A1b OLS estimates of log earnings. Sample of individuals over 65 years of age 83

2.A1c OLS estimation of log earnings by group of countries—men 85

2.A2a 2SLS estimates of log earnings 91

2.A3a OLS estimates of food share—all, Nordic, and Germanic countries 93

2.A3b OLS estimates of food share—southern, French, and eastern countries 94

2.A4a OLS estimates of log permanent income. Singles—All, Nordic, and Germanic countries 96

2.A4b OLS estimates of log permanent income. Singles—southern, French, and eastern countries 98

2.A5a OLS estimates of log permanent income. Couples—All, Nordic, and Germanic countries 99
2.A5b OLS estimates of log permanent income. Couples—southern, Germanic, and eastern countries 101
2.A6a Ordered probit estimates of self-reported health—men and women 103
2.A6b Ordered probit estimates of self-reported health—Nordic, Germanic countries. 105
2.A6c Ordered probit estimates of self-reported health—southern, French, and eastern countries 106
2.A7a OLS estimates of objective health index—men and women 108
2.A7b OLS estimates of objective health index—Nordic, Germanic countries 110
2.A7c OLS estimates of objective health index—southern, French, and eastern countries 112
3.1 Relationship between transitory variance, unemployment rate, and GDP growth 128
3.2 Spain: insurance parameter estimates 143
3.3 Italy: insurance parameter estimates 145
3.4 Denmark: insurance parameter estimates 147
3.5 Partial insurance coefficients on non-durable consumption—various subsamples 149
3.6 Partial insurance coefficients on total consumption—various subsamples 150
3.7 Partial insurance coefficients on non-durables—various income sources 152
3.A1 Estimates of permanent and transitory variances over time—ECHP 155
3.A2 Spain 157
3.A3 Italy 158
3.A4 Denmark 159

List of Contributors

Orazio P. Attanasio, University College London and the Institute for Fiscal Studies
Margherita Borella, University of Turin
Olympia Bover, Banco de España
Agar Brugiavini, Ca' Foscari University of Venice
Torben Heien Nielsen, University of Copenhagen
Elisabetta Trevisan, University of Padua
Guglielmo Weber, University of Padua

Introduction

Agar Brugiavini and Guglielmo Weber

The world is experiencing a long period of low economic activity that started in 2008 and goes under the name of 'the Great Recession'. In most developed countries one has to go back a long way to find a period of sustained low or negative growth—the 1970s are the most prominent example, when two oil shocks (one in 1973, the other in 1979) hit oil-greedy developed countries, generating mass unemployment and in many cases high inflation. Recessionary episodes have affected individual countries since, for instance the Nordic countries in the early 1990s (following the dissolution of the Soviet Union and the burst of various housing bubbles), but for another worldwide negative business cycle episode one has to go back all the way to the 1930s.

The question we address in this book is: what consequences is the Great Recession likely to have on the lives of individuals? This is an ambitious question to ask. To the extent that the current economic crisis is unique, an informed and intelligent answer cannot be given. But, as Reinhardt and Rogoff passionately argue in their influential (2009) book on financial crises, it is simply not true that 'this time is different'. To the extent that this time is similar to other times of recession, we can learn from past experiences of individual and economy-wide financial hardship. We can identify which groups of the population are more at risk of being forever scarred by the recession, and which institutions or policies are most likely to be effective in reducing its adverse long-term effects.

This book mostly deals with the lives of Europeans. Europe is a very diverse continent: it includes countries—like Denmark and Sweden—where the welfare state is meant to insure all individual risks; but also countries like Italy and Spain, where the family plays a similar role, with some help from the state (via the public health-care and pension systems). It includes countries where the trade unions play a key role in the labour market (like Germany, where they take a supervisory role in the management of firms; or Italy, where the government involves them in all major decisions), and countries where they are mostly confined to specific sectors (like Switzerland or Belgium). It includes countries where access to financial and debt market is widespread among consumers (Sweden, Denmark, the Netherlands, and Switzerland) and countries where such access is much more limited (Spain, Italy, Greece, but to some extent even France and Austria).

The huge diversity of institutional arrangements across European countries makes our study on the long-term effects of recession and financial hardship particularly interesting, but also difficult. Sometimes in this book we will be able to point to examples where institutions appear to make a difference; in other cases we will be led to conclude that different forms of insurance are equally effective or similarly ineffective; but in many cases we will not be able to come to firm conclusions. A great challenge for economists and social researchers alike is to further investigate the role that the wide variety of specific institutions and tightly-targeted policies played in previous downturns, and may play in the current recession.

In the first two chapters we use a new life-history survey to directly assess the long-term consequences of financial hardship, in conjunction or otherwise with periods of recession or high inflation. This survey—going under the name of SHARELIFE—was run in 2008–9 in thirteen European countries among residents aged fifty or more, and records information on some key aspects of their lives (childhood and detailed family circumstances, health, work, and housing histories). Crucially for us, it also asks a direct question on the most relevant period of financial hardship individuals ever experienced (if any).

In Chapter 1 we address the question of which individual or macro-shocks make people fall into financial hardship—and which instead make them exit a financial hardship episode if they ever entered it. This analysis highlights the all-important role of such shocks as divorce, birth of children and their nest-leaving, or the inception of poor health and bereavement, but also suggests the importance of job loss and retirement (particularly if brought about by poor health). Inflation and recession episodes also play a direct role, but this is much smaller for those who are not otherwise affected.

Chapter 2 analyses the long-term effects of financial hardship on a number of different indicators of welfare and well-being. This is the closest we get to providing a direct answer to the question posed in the title—that is, on the longer term consequences of the Great Recession on the lives and welfare of Europeans. Thanks to the richness of the data, we can look at a number of different outcomes of interest. We study individual earnings (at the time of the survey for the employed, at the time of the main job for the retired), as a measure of labour market success. We also investigate household food consumption, known to be a good indicator of the standard of living, and another measure of long-term resources (that we call ‘permanent income’). We further look at two distinct health measures: one is a catch-all indicator that is purely based on objective conditions (diagnosed illnesses, limitations in daily life activities, performance in a battery of physical tests); the other one is the answer the respondent provides to a general question on his/her health status, and captures not only objective health, but also the individual’s perception of it. In all cases we are able to show not only the effects of a financial hardship episode, of its length and timing in life, but also the differential impact such an episode has if experienced at school-leaving age (a time particularly important for somebody’s career) or during an economic downturn (recession or inflationary period, as it may be).

In Chapter 3, we follow a more standard, but technically demanding approach, and use individual (or to be precise: household) income and consumption data to establish whether income shocks are temporary or permanent, and to what extent they translate to changes in consumption. In a perfect world, all income shocks (permanent and temporary) are perfectly insured, and shocks only affect individual consumption if they hit the whole economy. But the evidence we provide in this part of the book confirms a fact that many of us have long suspected: we do not live in a perfect world! To be more precise, and to the point, in some countries temporary shocks are reasonably well insured, but in all countries we consider permanent shocks are (to a large extent) not. And this explains why we find it takes so long to recover from a financial hardship episode, and why its effects take so many years to wear out.

In the final chapter, Chapter 4, we provide a non-technical summary of the results presented in previous chapters, highlighting underlying common themes on the presence and persistence of financial hardship. We suggest a possible line of interpretation that stresses the distinction between permanent and transitory shocks (not only to income, but also to other determinants of individual well-being) and recognizes the key role played by different forms of social insurance, ranging from the all-encompassing welfare state in Nordic countries, to the family-based social networks in Mediterranean countries.

1

Anatomy of Financial Hardship

Olympia Bover, Agar Brugiavini, and Guglielmo Weber

1. Introduction

Economists normally address the issue of the impact on consumers of recessions and other negative macro-shocks by analysing the way negative income shocks occur and their transmission across individuals. Negative income shocks can be due to loss of job, or to a reduction in work hours that is brought about by reduced economic activity, or to a decrease in the purchasing power of earnings or savings due to inflation. Negative shocks can also be associated with poor health, family dissolution (divorce, death of spouse), or the return to the parental nest of grown children (the so-called 'boomerang kids', according to Wiemers' (2011) definition). These shocks translate into reduced consumption to the extent that societies and individuals are not able to insure them. In principle, micro-shocks can be insured, macro-shocks cannot (although their negative effect can be equalized across individuals). In Southern European countries, shocks are mostly absorbed by the family, and this may explain the high household savings typically observed in Italy, Spain, or Greece. In Northern European countries, the welfare state should fully take care of individuals hit by an adverse shock ('from the cradle to the grave', in the words of Lord William Beveridge). In some other countries (the US, but also the UK, Switzerland, and the Netherlands) an important role is played by the insurance and financial markets.

Before engaging in the intriguing, technically demanding analysis of how income shocks translate into consumption shocks and why (something we leave to Chapter 3), we are going to use direct evidence on financial hardship as reported by individuals who look back at their own lives (life-history data). Reports of financial hardship episodes can shed light on what makes individuals and their families more likely to suffer from financial hardship