CeRP CENTER FOR RESEARCH ON PENSIONS AND WELFARE POLICIES

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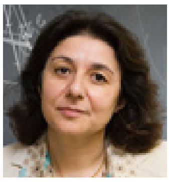
HIGHLIGHTS

The importance of being financially literate

ANNAMARIA LUSARDI AND OLIVIA MITCHELL WIN FIDELITY PYRAMID PRIZE FOR THEIR RESEARCH ON FINANCIAL LITERACY

Individuals are increasingly in charge of their own financial security after retirement. But how well-equipped are individuals to make saving decisions? Do they possess adequate financial literacy, are they informed about the most important components of saving plans, do they even plan for retirement?



These are issues **Annamaria Lusardi** (member of the CeRP scientific committee) has been dealing with in her recent research work. Her joint paper with Olivia Mitchell "Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth" (CeRP WP n. 54) won the Fidelity Research Institute Pyramid Prize, awarded to outstanding works focused on the improvement of financial well-being.

In their paper, Lusardi and Mitchell compare wealth holdings across two cohorts of the Health and Retirement Study in the US: the early Baby Boomers in 2004, and individuals in the same age group in 1992. They find that levels and patterns of total net worth have changed relatively little over time, though Boomers rely more on housing equity than their predecessors. Most important, planners in both cohorts arrive close to retirement with much higher wealth levels and display higher financial literacy than non-planners. Instrumental variables estimates show that planning behavior can explain the differences in savings and why some people arrive close to retirement with very little or no wealth.

HTTP://ANNALUSARDI.BLOGSPOT.COM

Shaping the European research agenda

CERP PARTNER OF NETSPAR IN SUCCESSFUL PROPOSAL ON AGEING

The European Science Foundation (ESF) has accepted the proposal **Ageing, Health and Pensions in Europe**, submitted by a network of institutions run by Netspar and including CeRP. The proposal aims at helping to shape the research agenda on the economics of ageing in Europe in the next ten years.

The tasks of the network will be to produce papers that give an overview of the state of affairs in the following areas: labour market issues, income security of an ageing population, well-being of the elderly. Elsa Fornero is a member of the steering committe of the network. The results will be discussed at workshops and at a final conference. Some of the foreseen events will take place at CeRP.

The network includes institutes in the field of Economics of Ageing in London, Toulouse, Mannheim, Düsseldorf, Dublin and Lausanne.

HTTP://WWW.NESTPAR.NL/FORWARDLOOKS/

NEW RESEARCH OUTPUT

WOMEN PARTICIPATION AND CARING DECISIONS: DO DIFFERENT INSTITUTIONAL FRAMEWORKS MATTER? A COMPARISON BETWEEN ITALY AND THE NETHERLANDS **by Flavia Coda Moscarola**

From a classic static model of time allocation with altruism, this paper derives testable implications relative to the effects of the differences in policy intervention on informal care and participation. These are then tested by comparing working and informal caring choices in Italy and The Netherlands, two countries that differ deeply in the policy interventions towards adults in need and in the accessibility to part-time working positions.

The analysis is conducted by comparing the estimated coefficients of a multivariate dynamic binary probit on informal care provision and participation on a panel sample of working age married women of the two countries. As predicted by the model, results reveal for The Netherlands with respect to Italy a lower negative causal effect of informal care on labour market participation, a lower state dependence in informal caring decisions and a non significant role of income levels in determining caring choices.

THE POLITICAL ECONOMY OF THE DISABILITY INSURANCE. THEORY AND EVIDENCE OF GUBERNATORIAL LEARNING FROM SOCIAL SECURITY ADMINISTRATION MONITORING **by Radha Iyengar and Giovanni Mastrobuoni**

The dramatic rise in the disability insurance (DI) roles in the last 20 years has been the subject of much controversy in both popular and academic circles. While the relationship between DI and labor force participation has been the subject of a growing literature, the mechanism of this transition from employment to DI remains unclear.

The authors hypothesize that one mechanism is the state-level administration of the program which creates a classic principal-agent problem. This paper analyzes the impact of continuing conflict of interests for Disability Determination Services agencies—between Social Security Administration standards and state gubernatorial political interests—interacted with the increased demand for disability insurance as an alternative for low-skilled works during the period of 1982 to 2000.

The authors find evidence that multi-term governors allow a greater fraction of applicants than do first term governors. They then develop a model that illustrates how these differences can be due to the type of monitoring conducted by the Social Security Administration. Additional evidence supporting this hypothesis is provided in the form of sub-group analysis by economic and political constraints. Overall, evidence is found that the monitoring system is counter-productive and encourages over-use of the disability insurance program to serve political ends.

DIVERSIFYING IN PUBLIC REAL ESTATE: THE EX-POST PERFORMANCE by Carolina Fugazza, Massimo Guidolin and Giovanna Nicodano

In this work the authors calculate the ex-post portfolio performance for an investor who diversifies among stocks, bonds, REITS and cash. Simulations are performed for two alternative asset allocation frameworks – classical and Bayesian - and for scenarios involving two different samples and six different investment horizons. Interestingly, the ex-post welfare cost of restricting portfolio choices to traditional financial assets only is found to be positive in all scenarios for a Bayesian investor. On the contrary, substitution of E-REITS for stocks in optimal portfolios turns out to reduce ex-post portfolio performance over the nineties for a Classical investor.

SMALL CAPS IN INTERNATIONAL EQUITY PORTFOLIOS: THE EFFECTS OF VARIANCE RISK by Massimo Guidolin and Giovanna Nicodano;

This paper shows that predictable covariances between means and variances of stock returns may have a first order effect on portfolio composition. In an international asset menu that includes both European and North American small capitalization equity indices, the authors find that a three-state, heteroskedastic regime switching VAR model is required to provide a good fit to weekly return data and to accurately predict the dynamics in the joint density of returns. As a result of the non-linear dynamic features revealed by the data, small cap portfolios become riskier in bear markets, i.e. display negative co-skewness with other stock indices. Because of this property, a power utility investor ought to hold a well-diversified portfolio, despite the high risk premium and Sharpe ratios offered by small capitalization stocks. On the contrary small caps command large optimal weights when the investor ignores variance risk, by incorrectly assuming joint normality of returns. These results provide the missing partial equilibrium rationale for the presence of co-skewness in the empirical asset pricing models that have been proposed to explain the cross-section of stock returns.

INTERNATIONAL DIVERSIFICATION AND LABOR INCOME RISK by Carolina Fugazza, Maela Giofré, Giovanna Nicodano

Members of an occupational pension plan face the same industry shocks, since membership is based on employment industry. An occupational pension fund may therefore design portfolio composition so as to hedge members' labour income shocks at the industry level.

This paper quantifies differences in optimal equity portfolios across investors belonging to different industry-country pairs. The authors compare these industry-based portfolios to the one that would be optimal for an investor endowed with the average home-country labor income. The analysis uncovers remarkable heterogeneity across industries in the three investing countries considered - US, Canada and Italy. These results point to a clear-cut role of occupational pension funds in hedging labour income risk through international equity diversification.

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People's news

New CeRP fellow: Massimo Guidolin

Massimo Guidolin (Professor of Finance, Manchester Business School and Senior Economist, Federal Reserve Bank of St. Louis) will be hosted at CeRP as visiting fellow from December 2007 through August 2008. Massimo will carry out studies on strategic asset allocation for institutional investors as well as on saving rates and housing prices.

PhD students at CeRP

Chiara Monticone, junior researcher at CeRP, has entered the PhD programme of the University of Turin. **Serena Trucchi**, PhD candidate at the University of Turin has recently joined the CeRP group, and is collaborating in the area of household saving. **Bianca Buligescu**, PhD student in Social Protection Policy at the Maastricht School of Governance, is currently carrying out a part of her thesis at CeRP, which is partner of the programme.

Giovanni Mastrobuoni winner of the Upjohn Dissertation Award

Giovanni Mastrobuoni, fellow of CeRP and Collegio Carlo Alberto, has been awarded the honorable mention prize by W. E. Upjohn Institute for Employment Research for his PhD dissertation "An Empirical Evaluation of Recent Social Security Reforms".

HTTP://CERP.UNITO.IT/NEWS

■ WORK IN PROGRESS

ADEQUACY OF OLD AGE INCOME MAINTENANCE IN THE EU (AIM)

Since its inception, CeRP has shown a major interest in the study of the sustainability and adequacy of pension systems, an area where there is a great need for applied research.

Since 2005 CeRP is part of a network of international institutions in the field of socio-economic research (run by CEPS in Brussels) working on a joint, multidisciplinary project (AIM: 'Adequacy of Old-Age Income Maintenance in the EU') funded by the European Commission. The core of this 3-year-long project is the production, with a policy-oriented approach, of methodologies for evaluating the current and prospective adequacy of pension systems, i.e. the capacity of pensions to deliver adequate old age income maintenance under the condition of overall sustainability of public finances. This objective is implemented by undertaking model-based simulations, bringing together the different approaches and methods of the various members of the network.

Beside sharing with CEPS the scientific coordination of the project, CeRP is the leading institute of the simulation team, and has built a semi-aggregate model (SAM) meant to capture the effects of population ageing on the labour market as well as the social protection expenditure within differently shaped welfare systems. The model is currently being used to calculate comprehensive replacement rates over time for a range of European countries.

HTTP://WWW.ENEPRI.ORG/AIM

MACROECONOMIC ASPECTS OF ITALIAN PENSION REFORMS by Tetyana Dubovyk

In 1990s, several pension reforms had been adopted to insure financial sustainability of Italian Social Security system. This project studies three main features of the Amato and Dini reforms: (i) adoption of a notional defined contribution formula; (ii) price indexation of benefits as compared to wage indexation prior to 1992; (iii) increase in retirement age. As the reforms envision a long phase-in period, the study considers the effect of the reforms on different generations and ability groups within generations. The major focus is on time allocation and human capital accumulation decisions of transition generations. Within a general equilibrium framework, the individual decisions determine macroeconomic performance of the economy and solvency of the new retirement system.

SAVING RATES AND HOUSE PRICE DYNAMICS IN EUROPE: STRUCTURAL MODELING AND IMPLICATIONS FOR THE FUTURE by Riccardo Calcagno, Elsa Fornero, Massimo Guidolin, Mariacristina Rossi

This study aims at examining the potentially strong effect of the recent appreciation in the real estate asset value on the households' patterns consumption and savings behavior.

The authors speculate that analysing the different degree of financial sophistication ("completeness")

Focus The Government-Unions agreement on welfare: an evaluation

Recent comments posted on the CeRP web site deal with the ongoing debate in Italy over the new draft law on pensions, following the July 2007 agreement between Government and Trade Unions.

The immediate goal of the bill is to prevent the former (2004) pension law to become effective, as originally stipulated, at the beginning of 2008, and consequently to avoid the rather abrupt increase in retirement age (three years) established by that reform, which would cause a sharp discontinuity of treatment between adjacent cohorts (the so-called "scalone" - big step).

From a political point of view, the welfare protocol can be thought of as a "reasonable compromise" among the different stances of a composite majority and the rather conservative attitudes of Italian trade unions.

From a technical point of view, the agreement can be evaluated by considering its expected contribution to the financial sustainability of the system, both in the short/medium term, i.e. in the transition phase, and in the long run, i.e. when the new Notional Defined Contribution (NDC) regime will be fully phased in.

As for the medium/short term, still characterised by a defined benefit type of formula, the main change is the smoothing of the "scalone". With respect to the 2004 law, the new provision stipulates a milder increase in retirement age as of 2008, followed by a phase of progressively more stringent combinations of seniority and steadily increasing minimum retirement ages. Two caveats, however, are in order: i) the still unclear definition of the categories of workers in hazardous occupations, to whom the increases will not apply; ii) the amount and coverage of the costs.

As for the long term, a positive feature of the draft law is that it reaffirms the contribution-based method for calculating benefits. Indeed, the law stipulates new and tighter rules for the revision of the transformation coefficients (one of the key ingredients of the NDC system), which somehow strengthen the mechanism. However, contradictory signals are also given, such as the further postponement of the first revision (originally due in 2005, it is further deferred to 2010) and the reference to a possible guaranteed replacement ratio for the young generations, which could undermine the commitment to the new system.

In short, the agreement is a mix of lights and shadows. Hopefully, the legislator will keep confirming and strengthening the contribution-based method. Once this method is applied, the best pension reform has to occur within the labour market. If this works, so will pensions.

HTTP://CERP.UNITO.IT/FOCUS

across countries, the age and composition of households, the different perception of the persistence and variability of the shocks to house prices, and the size and distribution of the transaction costs and frictions implied by real estate transactions will deliver two valuable outcomes. First, a deeper understanding of the differences in averages as well as the recent dynamics of savings rate across developed countries. Second, a range of well-founded predictions on how saving behaviors are likely to evolve, as a result of factors connected with demographics, structure and evolution of the welfare and retirement systems, financial innovation, financial stability and volatility, growth differentials, and the social framework which impacts on the cost of switching jobs, houses, and eventually life.

The research received funding from the Observatoire de l'Epargne Européenne (OEE, Paris).

HOW SECOND PILLAR REFORMS AFFECT THE DISTRIBUTIVE IMPACT OF PUBLIC PENSION SYSTEM TRANSITION by Flavia Coda Moscarola and Chiara Monticone

In order to increase participation to supplementary funds, the 2007 Italian Budget Law introduced a "silent-assent" mechanism allocating new flows of TFR (yearly accumulation of employees' severance pay) to pension funds. This is often thought as a way to contrast the declining trend of average replacement rates brought about by the reform process of the 1990s.

Taking into account various scenarios of policy options and pension funds performance, the authors look at how participation to pension funds affects the average level of retirement benefits as well as its distributive impact, if any.

The authors use an updated version of CeRPSIM, a micro-simulation model by cohorts, developed to capture in depth the effects of both normative and earning risks. Particular care is devoted to model the legislative framework of the reform process phasing-in and to reproduce heterogeneity in individual income and labour force participation profiles. With respect to the original version of the model, this version is enriched with two specific modules, in order to calculate second pillar pension benefits and the effects of taxation.

HTTP://CERP.UNITO.IT/RESEARCH

EVENTS

WORKSHOP IN CAPITAL MARKETS

Jointly organized by CERP and Collegio Carlo Alberto, this new workshop aims at fostering intellectual exchange among researchers who share interests in the broad area of capital markets, including financial economics, financial econometrics, empirical finance, mathematical finance, financial engineering, and history of financial markets. The informal workshop is made of presentations by resident and visiting scholars at the Collegio, taking place on Tuesday, 6 - 7 pm, at least every other week.

HTTP://CERP.UNITO.IT/AGENDA

RESULTS OF CERP STUDIES PRESENTED AT INTERNATIONAL CONFERENCES

- Carolina Fugazza and Giovanna Nicodano presented results of the paper **"International diversification and labor income risk"** at the ICPM-NETSPAR conference in Maastricht on October 31, 2007.

- Michele Belloni presented his work **"The importance of financial incentives on retirement choices in Italy"** at the NETSPAR workshop "Pension, Savings and Retirement Decisions", Utrecht, November 29, 2007.

- Antonio Mele presented **"Information linkages and correlated trading"** at the Stockholm Shool of Economics (October 2007) and **"Financial volatility and real economic activity"** at Universitat Pompeu Fabra, Barcelona, (November 2007).

- Elsa Fornero and Margherita Borella presented the CeRP contribution to the **AIM project** at the network's meeting in Budapest (11-12 November 2007).

Recent Publications

Asymmetric Stock Market Volatility and the Cyclical Behavior of Expected Returns by A. Mele; *Journal of Financial Economics*, 86, 446-478 (2007)

Diversifying in Public Real Estate: The Ex Post Performance by C. Fugazza, M. Guidolin, G. Nicodano; CeRP WP 69/07; forthcoming, *Journal of Asset Management*

Small Caps in International Equity Portfolios: The Effects of Variance Risk by M. Guidolin and G. Nicodano; CeRP WP 68/07; forthcoming, *Annals of Finance*

LATEST CERP WORKING PAPERS

N° 71/07: F. Coda Moscarola **Women participation and caring decisions: do different institutional frameworks matter? A comparison between Italy and The Netherlands**

N° 70/07: R. Iyengar and G. Mastrobuoni **The Political Economy of the Disability Insurance. Theory and Evidence of Gubernatorial Learning from Social Security Administration Monitoring**

N° 67/07: C. Fugazza, M. Giofré, G. Nicodano **International Diversification and Labor Income Risk**

N° 66/07: M. van Rooij, A.Lusardi, R. Alessie **Financial Literacy and Stock Market Participation**

N° 65/07: A. Lusardi **Household Saving Behavior: The Role of Literacy, Information and Financial Education Programs**

The papers are available at:

HTTP://CERP.UNITO.IT/PUBLICATIONS