



Banco de Portugal

EUROSISTEMA

Estudos e Documentos de Trabalho

Working Papers

2 | 2008

DO RESERVATION WAGES REALLY DECLINE? SOME INTERNATIONAL
EVIDENCE ON THE DETERMINANTS OF RESERVATION WAGES

John T. Addison

Mário Centeno

Pedro Portugal

February 2008

*The analyses, opinions and findings of these papers represent the views of the
authors, they are not necessarily those of the Banco de Portugal.*

Please address correspondence to

Pedro Portugal

Economics and Research Department

Banco de Portugal, Av. Almirante Reis no. 71, 1150-012 Lisboa, Portugal;

Tel.: 351 213 138 410, Email: pportugal@bportugal.pt

BANCO DE PORTUGAL

Economics and Research Department

Av. Almirante Reis, 71-6th floor

1150-012 Lisboa

www.bportugal.pt

Printed and distributed by

Administrative Services Department

Av. Almirante Reis, 71-2nd floor

1150-012 Lisboa

Number of copies printed

170 issues

Legal Deposit no. 3664/83

ISSN 0870-0117

ISBN 978-989-8061-24-9

Do Reservation Wages Really Decline? Some International Evidence on the Determinants of Reservation Wages *

John T. Addison[†]

University of South Carolina and IZA, Bonn

Mário Centeno

Banco de Portugal and Universidade Técnica de Lisboa

Pedro Portugal

Banco de Portugal and Universidade NOVA de Lisboa

This Version: February 2008

Abstract

Using cross-country data, we investigate the determinants of reservation wages and their course over the jobless spell. Higher unemployment benefits lead to higher reservation wages. Further, repeated observations on the same individual provide scant evidence of declining reservation wages.

KEYWORDS: reservation wages, probability of reemployment, unemployment benefits, arrival rate of job offers

JEL CODES: J64, J65

*The authors gratefully acknowledge the partial financial support from the Fundação para a Ciência e a Tecnologia. The usual disclaimer applies.

[†]Corresponding author: John T. Addison, Department of Economics, Moore School of Business, University of South Carolina, 1705 College Street, Columbia, SC 29223. Tel.: 803 777 4608. Fax: 803 777 6876. Email: ecceaddi@moore.sc.edu

1 Introduction

Reservation wages play a key role in search theory, wherein optimal job search implies the reservation wage property and the optimal stopping rule. Despite its key role in theory, however, most empirical search studies have been conducted in the absence of reservation wage data, at best identifying this basic search-theoretic element through theoretical and auxiliary restrictions (e.g. Bloemen and Stancanelli, 2001). For their part, the much sparser group of studies with direct evidence on reservation wages (surveyed in Devine and Kiefer, 1991) have largely been based on single survey responses, and typically contain little retrospective information about employment or income histories. And in neither case is there comparative evidence.

The present exercise is exploratory. We deploy a unique *cross-country* data set that combines survey information on the lowest wages that unemployed respondents are willing to accept with detailed information on their employment and income histories to examine three key features of the stationary job search model. First, we examine the association between reservation wages and unemployment benefits. Second, we provide the first evidence of which we are aware on the role of the arrival rate of job offers in elevating reservation wages. Finally, exploiting the longitudinal capacity of our data set, we determine whether reservation wages decline over the jobless spell.

2 Reservation Wages: The Associations Suggested by Theory

Assuming income-maximizing workers, infinite lives, unemployment benefits and jobs (once accepted), sampling without recall, wage offers that are independent realizations from a known wage offer distribution and received according to a Poisson process with parameter δ , the reservation wage rate can be written:

$$w^r = b + \frac{\delta}{\rho} \int_{w^r}^{\infty} (w - w^r) \partial F(w), \quad (1)$$

where b is the (constant) amount of unemployment benefits net of any search costs, ρ is the discount rate, w is the wage offer, and $F(w)$ is the cumulative wage distribution. Evaluating the integral and rearranging terms gives

$$(w^r - b)\rho = [E_w(w|w \geq w^r) - w^r][1 - F(w^r)]\delta, \quad (2)$$

which makes more transparent the role of the reservation wage in equating the marginal costs and benefits of continued search.

Familiarly, then, changes in the independent variables affect either the marginal costs or benefits of additional search, producing offsetting changes in the reservation wage. Specifically, the derivatives of the reservation wage with respect to unemployment benefits, the arrival rate of job offers, and the mean of the wage offer distribution are all positive, while the derivative of the reservation wage with respect to the discount rate is negative.

The central assumption of the model is that reservation wages are time invariant because the present discounted value of accepting a job offer is continuous and increasing in w , and because the present discounted value of unemployed search does not depend on any particular offered wage, only the distribution.

3 Data

Our data are taken from the first six waves of the European Community Household Panel (ECHP), 1994-99. The ECHP is a survey based on a standardized questionnaire administered annually to a representative panel of households and individuals in 15 member states and offers detailed information on the respondent's labor market experience, inter al. (see, for example, EUROSTAT, 1999).¹ We used data for 13 of the countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Portugal, Spain, the Netherlands, and the United Kingdom. The excluded countries are Sweden and Luxembourg, where it is not possible to follow individuals through time. Data is not available for the entire

¹In 1994 for example some 60,500 such households, or a little over 130,000 adults aged 16 years and above, were interviewed

period for five countries. Specifically, Austria and Finland were only added to the panel in 1995 and 1996; the data for Germany and the United Kingdom are for the first three waves alone because of missing data on reservation wages and job offers, respectively, in subsequent waves; and for the Netherlands information on reservation wages was missing for the years 1994 and 1995.

For us the key pieces of information contained in the EHCP are reservation wages, unemployment duration, and job offer rates. In the EHCP every individual actively looking for work is asked two questions pertaining first to desired hours of work and second to the minimum income required to work these hours. The actual questions are: *Assuming you could find suitable work, how many hours would you prefer to work in this new job?* and *What is the minimum net monthly income would you accept to work [these number of] hours a week in this new job?* The key reservation wage construct used in this paper is an hourly net reservation wage, computed as the ratio of desired net monthly income to the optimal number of hours. This variable was deflated by the respective national consumer price index, as were all other nominal arguments.

The measure of unemployment duration is strictly length of the jobless spell. For those actively seeking employment we know both the month and year of the interview² as well as the date on which the previous job was lost. The difference in months is a measure of joblessness since it may include intervals of inactivity. Finally, as far as the measure of job offers is concerned, the EHCP inquires of those seeking employment whether or not they had received a job offer in the previous month (viz. *Have you received any job offer during the past 4 weeks?*). We use this information on the receipt (and rejection) of job offers to proxy the arrival rate of job offers. According to the model, reservation wages should be increasing in the arrival rate of job offers.

²Other than for Germany, where we assume it to be October in each year.

4 Findings

First consider the determinants of reservation wages. Table 1 focuses on the role of unemployment insurance benefits and job offers. Two sets of OLS results are provided in the table according to whether the unemployment benefits variable is measured in terms of access to benefits or the amount of benefits received. The first (and second) column(s) refer to a specification containing an unemployment benefits dummy whereas the fourth (and fifth) column(s) refer to results from using the actual log level of benefits, each in conjunction with a job offers dummy variable indicating whether or not the unemployed individual received any offer of employment in the preceding four weeks.³ Each equation also includes a gender dummy, five time dummies, three schooling and four age dummies.

(Table 1 near here)

It can be seen that the coefficient estimate for the unemployment benefits dummy is positive and well determined for five countries in the sample. For these countries - Denmark, the Netherlands, Greece, Portugal, and Spain - the effect on reservation wages of access to benefits is quite strong. For its part, the impact of having received a job offer is typically positive as one would anticipate - although this has not been demonstrated before - and in six cases is statistically significant. When benefits are expressed in monthly values, their influence is statistically significant in six cases (albeit not necessarily for the same countries). In this case, however, the *elasticities* are typically small. The principal exception is the United Kingdom where a 10 percent increase in benefit levels elevates reservation wages by 4 percent. Now the effect of job offers is much attenuated.

We next exploit the longitudinal capacity of our dataset to informally inquire into the course of reservation wages over jobless duration. To this end, the log hourly reservation wage is regressed on the log of elapsed jobless duration for an unbalanced panel of unemployed workers. This exercise should be thought of as

³We exclude those individuals who reported receiving an offer and who also responded in the affirmative to a question in the survey indicating that they had accepted this offer. As a practical matter, however, this exclusion did not materially alter the results reported in Table 1.

strictly descriptive because of potential simultaneity: reservation wages influence duration with certainty but may also be influenced by duration.⁴

(Table 2 near here)

Abstracting from simultaneity issues, Table 2 presents fixed and random effects specifications of the reservation wage equation - the latter to account for cross-section variation over the sample period. For the fixed effects specification in the second column of the table - which provides a meaningful control for individual heterogeneity - the coefficient estimates for jobless duration are statistically significant (but of opposing sign) for just two countries in the sample, namely the United Kingdom and Spain. There is slightly greater evidence of a negative association between duration and reservation wages from the random effects specification. There are now well-determined negative associations for Austria, Portugal, and (again) Spain. That said, the more important point is that reservation wages seem to be stationary for the large majority of countries, consistent with the basic search model if not with the early literature surveyed in Devine and Kiefer (1991).

5 Conclusions

In this paper we have exploited a cross-country dataset - the European Community Household Panel (ECHP) - to examine directly (some aspects of) the role of reservation wages in the job search model. This is something of a new departure insofar as reservation wages are typically identified indirectly through theoretical and auxiliary restrictions. It is only something of a new departure, however, because other studies have also looked at direct evidence on reservation wages in *individual* countries. Our treatment differs from that sub-literature not simply in its cross-country basis but also with respect to its findings.

We have seen that both receipt and higher levels of unemployment insurance benefits translate into higher reservation wages, even if some of the point estimates are not statistically significant and the computed elasticities are quite small. The

⁴If, however, reservation wages are constant, the endogeneity problem is no longer an issue.

muted nature of the latter might indicate that there is not enough variation of replacement rates within countries. We have also uncovered for the first time the positive impact of the arrival rate of job offers on reservation wages.

Finally, again consistent with the basic model, we report that there is scant evidence of a decline in reservation wages with longer joblessness (see also Prasad, 2003). Indeed, the reservation wage appears stationary. The fact that reservation wages appear to be constant is interesting in itself, and may explain why unemployment rates are higher in Europe. Long (and in some cases near lifetime) maximum duration of benefits may lie at the root of the problem.

References

BLOEMEN, HANS AND ELENA STANCANELLI (2001). Individual Wealth, Reservation Wages, and Transitions into Employment. *Journal of Labor Economics* 19 (April): 400-439.

DEVINE, THERESA J., AND NICHOLAS M. KIEFER (1991). *Empirical Labor Economics - The Search Approach*. New York and Oxford: Oxford University Press.

EUROSTAT, 1999. European Community Household Panel. Longitudinal Users' Database. Waves 1, 2 and 3. Manual. Luxembourg: EUROSTAT.

PRASAD, ESWAR (2003). What Determines the Reservation Wages of Unemployed Workers? New Evidence from German Micro Data. *IZA Discussion Paper* No. 694, June.

Table 1. The Determinants of Reservation Wages: The Effect of Unemployment Insurance Benefits and Job Offers

Country	Full sample			Recipient sample		
	Unemployment benefits (dummy)	Job offer (dummy)	Sample size	Unemployment benefits (log of amount)	Job offer (dummy)	Sample size
Germany	0.028 (0.024)	0.072** (0.035)	862			
Denmark	0.110* (0.033)	0.041 (0.029)	1124	0.056 (0.039)	0.031 (0.041)	645
The Netherlands	0.078* (0.026)	-0.004 (0.040)	787	0.090* (0.033)	-0.020 (0.087)	158
Belgium	-0.035 (0.024)	0.017 (0.026)	1090	0.070* (0.017)	0.012 (0.030)	847
France	0.013 (0.008)	0.026** (0.012)	3947	0.125* (0.010)	0.001 (0.020)	1598
United Kingdom	0.056 (0.032)	-0.070 (0.068)	934	0.391* (0.157)	-0.254 (0.229)	169
Ireland	-0.008 (0.018)	0.124* (0.035)	1751	0.170* (0.050)	0.240** (0.100)	214
Italy	-0.004 (0.023)	0.014 (0.021)	6689	0.035 (0.025)	0.184 (0.132)	130
Greece	0.033** (0.014)	0.063*** (0.033)	3387	0.022 (0.044)	0.026 (0.111)	301
Spain	0.090* (0.009)	0.038** (0.016)	6975	0.191* (0.026)	0.062 (0.038)	955
Portugal	0.039** (0.015)	0.115** (0.047)	2051	0.280* (0.035)	0.088 (0.157)	
Austria	0.060 (0.063)	0.047 (0.065)	514	0.140 (0.176)	-0.025 (0.124)	158
Finland	0.017 (0.054)	-0.002 (0.080)	1582	0.035 (0.023)	-0.024 (0.097)	842

Standard errors in parentheses

*, **, and *** denote statistical significance at the .01, .05, and .10 levels

Note: The regressions include a gender dummy and 3 schooling, 4 age, and 5 time dummies.

Table 2. Estimates of the Impact of (Log) Duration on Reservation Wages Using Longitudinal Data

Country	Specification		Sample size
	Random effects	Fixed effects	
Germany	-0.007 (0.011)	0.019 (0.018)	613
Denmark	-0.002 (0.007)	0.018 (0.013)	1303
The Netherlands	-0.014 (0.011)	0.018 (0.030)	421
Belgium	0.000 (0.008)	0.001 (0.015)	837
France	-0.004 (0.005)	0.001 (0.009)	2085
United Kingdom	0.006 (0.010)	-0.039 (0.033)	839
Ireland	-0.008 (0.137)	-0.015 (0.010)	1583
Italy	-0.005 (0.004)	-0.004 (0.008)	4814
Greece	-0.013 (0.006)	-0.016 (0.012)	1855
Spain	-0.008* (0.003)	-0.009*** (0.005)	5861
Portugal	-0.011*** (0.006)	0.000 (0.009)	1639
Austria	-0.028** (0.014)	-0.008 (0.059)	621
Finland	-0.003 (0.006)	-0.001 (0.008)	1683

Standard errors in parentheses

*, **, and *** denote statistical significance at the .01, .05, and .10 levels

Note: The regressions include a gender dummy and 3 schooling, 4 age, and 5 time dummies.

WORKING PAPERS

2000

- 1/00 UNEMPLOYMENT DURATION: COMPETING AND DEFECTIVE RISKS
— *John T. Addison, Pedro Portugal*
- 2/00 THE ESTIMATION OF RISK PREMIUM IMPLICIT IN OIL PRICES
— *Jorge Barros Luís*
- 3/00 EVALUATING CORE INFLATION INDICATORS
— *Carlos Robalo Marques, Pedro Duarte Neves, Luís Morais Sarmiento*
- 4/00 LABOR MARKETS AND KALEIDOSCOPIIC COMPARATIVE ADVANTAGE
— *Daniel A. Traça*
- 5/00 WHY SHOULD CENTRAL BANKS AVOID THE USE OF THE UNDERLYING INFLATION INDICATOR?
— *Carlos Robalo Marques, Pedro Duarte Neves, Afonso Gonçalves da Silva*
- 6/00 USING THE ASYMMETRIC TRIMMED MEAN AS A CORE INFLATION INDICATOR
— *Carlos Robalo Marques, João Machado Mota*

2001

- 1/01 THE SURVIVAL OF NEW DOMESTIC AND FOREIGN OWNED FIRMS
— *José Mata, Pedro Portugal*
- 2/01 GAPS AND TRIANGLES
— *Bernardino Adão, Isabel Correia, Pedro Teles*
- 3/01 A NEW REPRESENTATION FOR THE FOREIGN CURRENCY RISK PREMIUM
— *Bernardino Adão, Fátima Silva*
- 4/01 ENTRY MISTAKES WITH STRATEGIC PRICING
— *Bernardino Adão*
- 5/01 FINANCING IN THE EUROSISTEM: FIXED VERSUS VARIABLE RATE TENDERS
— *Margarida Catalão-Lopes*
- 6/01 AGGREGATION, PERSISTENCE AND VOLATILITY IN A MACROMODEL
— *Karim Abadir, Gabriel Talmain*
- 7/01 SOME FACTS ABOUT THE CYCLICAL CONVERGENCE IN THE EURO ZONE
— *Frederico Belo*
- 8/01 TENURE, BUSINESS CYCLE AND THE WAGE-SETTING PROCESS
— *Leandro Arozamena, Mário Centeno*
- 9/01 USING THE FIRST PRINCIPAL COMPONENT AS A CORE INFLATION INDICATOR
— *José Ferreira Machado, Carlos Robalo Marques, Pedro Duarte Neves, Afonso Gonçalves da Silva*
- 10/01 IDENTIFICATION WITH AVERAGED DATA AND IMPLICATIONS FOR HEDONIC REGRESSION STUDIES
— *José A.F. Machado, João M.C. Santos Silva*

2002

- 1/02 QUANTILE REGRESSION ANALYSIS OF TRANSITION DATA
— José A.F. Machado, Pedro Portugal
- 2/02 SHOULD WE DISTINGUISH BETWEEN STATIC AND DYNAMIC LONG RUN EQUILIBRIUM IN ERROR CORRECTION MODELS?
— Susana Botas, Carlos Robalo Marques
- 3/02 MODELLING TAYLOR RULE UNCERTAINTY
— Fernando Martins, José A. F. Machado, Paulo Soares Esteves
- 4/02 PATTERNS OF ENTRY, POST-ENTRY GROWTH AND SURVIVAL: A COMPARISON BETWEEN DOMESTIC AND FOREIGN OWNED FIRMS
— José Mata, Pedro Portugal
- 5/02 BUSINESS CYCLES: CYCLICAL COMOVEMENT WITHIN THE EUROPEAN UNION IN THE PERIOD 1960-1999. A FREQUENCY DOMAIN APPROACH
— João Valle e Azevedo
- 6/02 AN “ART”, NOT A “SCIENCE”? CENTRAL BANK MANAGEMENT IN PORTUGAL UNDER THE GOLD STANDARD, 1854 -1891
— Jaime Reis
- 7/02 MERGE OR CONCENTRATE? SOME INSIGHTS FOR ANTITRUST POLICY
— Margarida Catalão-Lopes
- 8/02 DISENTANGLING THE MINIMUM WAGE PUZZLE: ANALYSIS OF WORKER ACCESSIONS AND SEPARATIONS FROM A LONGITUDINAL MATCHED EMPLOYER-EMPLOYEE DATA SET
— Pedro Portugal, Ana Rute Cardoso
- 9/02 THE MATCH QUALITY GAINS FROM UNEMPLOYMENT INSURANCE
— Mário Centeno
- 10/02 HEDONIC PRICES INDEXES FOR NEW PASSENGER CARS IN PORTUGAL (1997-2001)
— Hugo J. Reis, J.M.C. Santos Silva
- 11/02 THE ANALYSIS OF SEASONAL RETURN ANOMALIES IN THE PORTUGUESE STOCK MARKET
— Miguel Balbina, Nuno C. Martins
- 12/02 DOES MONEY GRANGER CAUSE INFLATION IN THE EURO AREA?
— Carlos Robalo Marques, Joaquim Pina
- 13/02 INSTITUTIONS AND ECONOMIC DEVELOPMENT: HOW STRONG IS THE RELATION?
— Tiago V.de V. Cavalcanti, Álvaro A. Novo

2003

- 1/03 FOUNDING CONDITIONS AND THE SURVIVAL OF NEW FIRMS
— P.A. Geroski, José Mata, Pedro Portugal
- 2/03 THE TIMING AND PROBABILITY OF FDI: AN APPLICATION TO THE UNITED STATES MULTINATIONAL ENTERPRISES
— José Brandão de Brito, Felipa de Mello Sampayo
- 3/03 OPTIMAL FISCAL AND MONETARY POLICY: EQUIVALENCE RESULTS
— Isabel Correia, Juan Pablo Nicolini, Pedro Teles

- 4/03** FORECASTING EURO AREA AGGREGATES WITH BAYESIAN VAR AND VECM MODELS
— *Ricardo Mourinho Félix, Luís C. Nunes*
- 5/03** CONTAGIOUS CURRENCY CRISES: A SPATIAL PROBIT APPROACH
— *Álvaro Novo*
- 6/03** THE DISTRIBUTION OF LIQUIDITY IN A MONETARY UNION WITH DIFFERENT PORTFOLIO RIGIDITIES
— *Nuno Alves*
- 7/03** COINCIDENT AND LEADING INDICATORS FOR THE EURO AREA: A FREQUENCY BAND APPROACH
— *António Rua, Luís C. Nunes*
- 8/03** WHY DO FIRMS USE FIXED-TERM CONTRACTS?
— *José Varejão, Pedro Portugal*
- 9/03** NONLINEARITIES OVER THE BUSINESS CYCLE: AN APPLICATION OF THE SMOOTH TRANSITION AUTOREGRESSIVE MODEL TO CHARACTERIZE GDP DYNAMICS FOR THE EURO-AREA AND PORTUGAL
— *Francisco Craveiro Dias*
- 10/03** WAGES AND THE RISK OF DISPLACEMENT
— *Anabela Carneiro, Pedro Portugal*
- 11/03** SIX WAYS TO LEAVE UNEMPLOYMENT
— *Pedro Portugal, John T. Addison*
- 12/03** EMPLOYMENT DYNAMICS AND THE STRUCTURE OF LABOR ADJUSTMENT COSTS
— *José Varejão, Pedro Portugal*
- 13/03** THE MONETARY TRANSMISSION MECHANISM: IS IT RELEVANT FOR POLICY?
— *Bernardino Adão, Isabel Correia, Pedro Teles*
- 14/03** THE IMPACT OF INTEREST-RATE SUBSIDIES ON LONG-TERM HOUSEHOLD DEBT: EVIDENCE FROM A LARGE PROGRAM
— *Nuno C. Martins, Ernesto Villanueva*
- 15/03** THE CAREERS OF TOP MANAGERS AND FIRM OPENNESS: INTERNAL VERSUS EXTERNAL LABOUR MARKETS
— *Francisco Lima, Mário Centeno*
- 16/03** TRACKING GROWTH AND THE BUSINESS CYCLE: A STOCHASTIC COMMON CYCLE MODEL FOR THE EURO AREA
— *João Valle e Azevedo, Siem Jan Koopman, António Rua*
- 17/03** CORRUPTION, CREDIT MARKET IMPERFECTIONS, AND ECONOMIC DEVELOPMENT
— *António R. Antunes, Tiago V. Cavalcanti*
- 18/03** BARGAINED WAGES, WAGE DRIFT AND THE DESIGN OF THE WAGE SETTING SYSTEM
— *Ana Rute Cardoso, Pedro Portugal*
- 19/03** UNCERTAINTY AND RISK ANALYSIS OF MACROECONOMIC FORECASTS: FAN CHARTS REVISITED
— *Álvaro Novo, Maximiano Pinheiro*
- 2004**
- 1/04** HOW DOES THE UNEMPLOYMENT INSURANCE SYSTEM SHAPE THE TIME PROFILE OF JOBLESS DURATION?
— *John T. Addison, Pedro Portugal*

- 2/04** REAL EXCHANGE RATE AND HUMAN CAPITAL IN THE EMPIRICS OF ECONOMIC GROWTH
— *Delfim Gomes Neto*
- 3/04** ON THE USE OF THE FIRST PRINCIPAL COMPONENT AS A CORE INFLATION INDICATOR
— *José Ramos Maria*
- 4/04** OIL PRICES ASSUMPTIONS IN MACROECONOMIC FORECASTS: SHOULD WE FOLLOW FUTURES MARKET EXPECTATIONS?
— *Carlos Coimbra, Paulo Soares Esteves*
- 5/04** STYLISED FEATURES OF PRICE SETTING BEHAVIOUR IN PORTUGAL: 1992-2001
— *Mónica Dias, Daniel Dias, Pedro D. Neves*
- 6/04** A FLEXIBLE VIEW ON PRICES
— *Nuno Alves*
- 7/04** ON THE FISHER-KONIECZNY INDEX OF PRICE CHANGES SYNCHRONIZATION
— *D.A. Dias, C. Robalo Marques, P.D. Neves, J.M.C. Santos Silva*
- 8/04** INFLATION PERSISTENCE: FACTS OR ARTEFACTS?
— *Carlos Robalo Marques*
- 9/04** WORKERS' FLOWS AND REAL WAGE CYCLICALITY
— *Anabela Carneiro, Pedro Portugal*
- 10/04** MATCHING WORKERS TO JOBS IN THE FAST LANE: THE OPERATION OF FIXED-TERM CONTRACTS
— *José Varejão, Pedro Portugal*
- 11/04** THE LOCATIONAL DETERMINANTS OF THE U.S. MULTINATIONALS ACTIVITIES
— *José Brandão de Brito, Felipa Mello Sampayo*
- 12/04** KEY ELASTICITIES IN JOB SEARCH THEORY: INTERNATIONAL EVIDENCE
— *John T. Addison, Mário Centeno, Pedro Portugal*
- 13/04** RESERVATION WAGES, SEARCH DURATION AND ACCEPTED WAGES IN EUROPE
— *John T. Addison, Mário Centeno, Pedro Portugal*
- 14/04** THE MONETARY TRANSMISSION IN THE US AND THE EURO AREA: COMMON FEATURES AND COMMON FRICTIONS
— *Nuno Alves*
- 15/04** NOMINAL WAGE INERTIA IN GENERAL EQUILIBRIUM MODELS
— *Nuno Alves*
- 16/04** MONETARY POLICY IN A CURRENCY UNION WITH NATIONAL PRICE ASYMMETRIES
— *Sandra Gomes*
- 17/04** NEOCLASSICAL INVESTMENT WITH MORAL HAZARD
— *João Ejarque*
- 18/04** MONETARY POLICY WITH STATE CONTINGENT INTEREST RATES
— *Bernardino Adão, Isabel Correia, Pedro Teles*
- 19/04** MONETARY POLICY WITH SINGLE INSTRUMENT FEEDBACK RULES
— *Bernardino Adão, Isabel Correia, Pedro Teles*
- 20/04** ACCOUNTING FOR THE HIDDEN ECONOMY: BARRIERS TO LEGALITY AND LEGAL FAILURES
— *António R. Antunes, Tiago V. Cavalcanti*

2005

- 1/05** SEAM: A SMALL-SCALE EURO AREA MODEL WITH FORWARD-LOOKING ELEMENTS
— *José Brandão de Brito, Rita Duarte*
- 2/05** FORECASTING INFLATION THROUGH A BOTTOM-UP APPROACH: THE PORTUGUESE CASE
— *Cláudia Duarte, António Rua*
- 3/05** USING MEAN REVERSION AS A MEASURE OF PERSISTENCE
— *Daniel Dias, Carlos Robalo Marques*
- 4/05** HOUSEHOLD WEALTH IN PORTUGAL: 1980-2004
— *Fátima Cardoso, Vanda Geraldés da Cunha*
- 5/05** ANALYSIS OF DELINQUENT FIRMS USING MULTI-STATE TRANSITIONS
— *António Antunes*
- 6/05** PRICE SETTING IN THE AREA: SOME STYLIZED FACTS FROM INDIVIDUAL CONSUMER PRICE DATA
— *Emmanuel Dhyne, Luis J. Álvarez, Hervé Le Bihan, Giovanni Veronese, Daniel Dias, Johannes Hoffmann, Nicole Jonker, Patrick Lünnemann, Fabio Ruml, Jouko Vilmunen*
- 7/05** INTERMEDIATION COSTS, INVESTOR PROTECTION AND ECONOMIC DEVELOPMENT
— *António Antunes, Tiago Cavalcanti, Anne Villamil*
- 8/05** TIME OR STATE DEPENDENT PRICE SETTING RULES? EVIDENCE FROM PORTUGUESE MICRO DATA
— *Daniel Dias, Carlos Robalo Marques, João Santos Silva*
- 9/05** BUSINESS CYCLE AT A SECTORAL LEVEL: THE PORTUGUESE CASE
— *Hugo Reis*
- 10/05** THE PRICING BEHAVIOUR OF FIRMS IN THE EURO AREA: NEW SURVEY EVIDENCE
— *S. Fabiani, M. Druant, I. Hernando, C. Kwapił, B. Landau, C. Loupias, F. Martins, T. Mathä, R. Sabbatini, H. Stahl, A. Stokman*
- 11/05** CONSUMPTION TAXES AND REDISTRIBUTION
— *Isabel Correia*
- 12/05** UNIQUE EQUILIBRIUM WITH SINGLE MONETARY INSTRUMENT RULES
— *Bernardino Adão, Isabel Correia, Pedro Teles*
- 13/05** A MACROECONOMIC STRUCTURAL MODEL FOR THE PORTUGUESE ECONOMY
— *Ricardo Mourinho Félix*
- 14/05** THE EFFECTS OF A GOVERNMENT EXPENDITURES SHOCK
— *Bernardino Adão, José Brandão de Brito*
- 15/05** MARKET INTEGRATION IN THE GOLDEN PERIPHERY – THE LISBON/LONDON EXCHANGE, 1854-1891
— *Rui Pedro Esteves, Jaime Reis, Fabiano Ferramosca*

2006

- 1/06** THE EFFECTS OF A TECHNOLOGY SHOCK IN THE EURO AREA
— *Nuno Alves, José Brandão de Brito, Sandra Gomes, João Sousa*
- 2/02** THE TRANSMISSION OF MONETARY AND TECHNOLOGY SHOCKS IN THE EURO AREA
— *Nuno Alves, José Brandão de Brito, Sandra Gomes, João Sousa*

- 3/06** MEASURING THE IMPORTANCE OF THE UNIFORM NONSYNCHRONIZATION HYPOTHESIS
— *Daniel Dias, Carlos Robalo Marques, João Santos Silva*
- 4/06** THE PRICE SETTING BEHAVIOUR OF PORTUGUESE FIRMS EVIDENCE FROM SURVEY DATA
— *Fernando Martins*
- 5/06** STICKY PRICES IN THE EURO AREA: A SUMMARY OF NEW MICRO EVIDENCE
— *L. J. Álvarez, E. Dhyne, M. Hoeberichts, C. Kwapil, H. Le Bihan, P. Lünnemann, F. Martins, R. Sabbatini, H. Stahl, P. Vermeulen and J. Vilmunen*
- 6/06** NOMINAL DEBT AS A BURDEN ON MONETARY POLICY
— *Javier Díaz-Giménez, Giorgia Giovannetti, Ramon Marimon, Pedro Teles*
- 7/06** A DISAGGREGATED FRAMEWORK FOR THE ANALYSIS OF STRUCTURAL DEVELOPMENTS IN PUBLIC FINANCES
— *Jana Kremer, Cláudia Rodrigues Braz, Teunis Brosens, Geert Langenus, Sandro Momigliano, Mikko Spolander*
- 8/06** IDENTIFYING ASSET PRICE BOOMS AND BUSTS WITH QUANTILE REGRESSIONS
— *José A. F. Machado, João Sousa*
- 9/06** EXCESS BURDEN AND THE COST OF INEFFICIENCY IN PUBLIC SERVICES PROVISION
— *António Afonso, Vítor Gaspar*
- 10/06** MARKET POWER, DISMISSAL THREAT AND RENT SHARING: THE ROLE OF INSIDER AND OUTSIDER FORCES IN WAGE BARGAINING
— *Anabela Carneiro, Pedro Portugal*
- 11/06** MEASURING EXPORT COMPETITIVENESS: REVISITING THE EFFECTIVE EXCHANGE RATE WEIGHTS FOR THE EURO AREA COUNTRIES
— *Paulo Soares Esteves, Carolina Reis*
- 12/06** THE IMPACT OF UNEMPLOYMENT INSURANCE GENEROSITY ON MATCH QUALITY DISTRIBUTION
— *Mário Centeno, Alvaro A. Novo*
- 13/06** U.S. UNEMPLOYMENT DURATION: HAS LONG BECOME LONGER OR SHORT BECOME SHORTER?
— *José A.F. Machado, Pedro Portugal e Juliana Guimarães*
- 14/06** EARNINGS LOSSES OF DISPLACED WORKERS: EVIDENCE FROM A MATCHED EMPLOYER-EMPLOYEE DATA SET
— *Anabela Carneiro, Pedro Portugal*
- 15/06** COMPUTING GENERAL EQUILIBRIUM MODELS WITH OCCUPATIONAL CHOICE AND FINANCIAL FRICTIONS
— *António Antunes, Tiago Cavalcanti, Anne Villamil*
- 16/06** ON THE RELEVANCE OF EXCHANGE RATE REGIMES FOR STABILIZATION POLICY
— *Bernardino Adao, Isabel Correia, Pedro Teles*
- 17/06** AN INPUT-OUTPUT ANALYSIS: LINKAGES VS LEAKAGES
— *Hugo Reis, António Rua*
- 2007**
- 1/07** RELATIVE EXPORT STRUCTURES AND VERTICAL SPECIALIZATION: A SIMPLE CROSS-COUNTRY INDEX
— *João Amador, Sónia Cabral, José Ramos Maria*

- 2/07** THE FORWARD PREMIUM OF EURO INTEREST RATES
— *Sónia Costa, Ana Beatriz Galvão*
- 3/07** ADJUSTING TO THE EURO
— *Gabriel Fagan, Vítor Gaspar*
- 4/07** SPATIAL AND TEMPORAL AGGREGATION IN THE ESTIMATION OF LABOR DEMAND FUNCTIONS
— *José Varejão, Pedro Portugal*
- 5/07** PRICE SETTING IN THE EURO AREA: SOME STYLISED FACTS FROM INDIVIDUAL PRODUCER PRICE DATA
— *Philip Vermeulen, Daniel Dias, Maarten Dossche, Erwan Gautier, Ignacio Hernando, Roberto Sabbatini, Harald Stahl*
- 6/07** A STOCHASTIC FRONTIER ANALYSIS OF SECONDARY EDUCATION OUTPUT IN PORTUGAL
— *Manuel Coutinho Pereira, Sara Moreira*
- 7/07** CREDIT RISK DRIVERS: EVALUATING THE CONTRIBUTION OF FIRM LEVEL INFORMATION AND OF MACROECONOMIC DYNAMICS
— *Diana Bonfim*
- 8/07** CHARACTERISTICS OF THE PORTUGUESE ECONOMIC GROWTH: WHAT HAS BEEN MISSING?
— *João Amador, Carlos Coimbra*
- 9/07** TOTAL FACTOR PRODUCTIVITY GROWTH IN THE G7 COUNTRIES: DIFFERENT OR ALIKE?
— *João Amador, Carlos Coimbra*
- 10/07** IDENTIFYING UNEMPLOYMENT INSURANCE INCOME EFFECTS WITH A QUASI-NATURAL EXPERIMENT
— *Mário Centeno, Alvaro A. Novo*
- 11/07** HOW DO DIFFERENT ENTITLEMENTS TO UNEMPLOYMENT BENEFITS AFFECT THE TRANSITIONS FROM UNEMPLOYMENT INTO EMPLOYMENT
— *John T. Addison, Pedro Portugal*
- 12/07** INTERPRETATION OF THE EFFECTS OF FILTERING INTEGRATED TIME SERIES
— *João Valle e Azevedo*
- 13/07** EXACT LIMIT OF THE EXPECTED PERIODOGRAM IN THE UNIT-ROOT CASE
— *João Valle e Azevedo*
- 14/07** INTERNATIONAL TRADE PATTERNS OVER THE LAST FOUR DECADES: HOW DOES PORTUGAL COMPARE WITH OTHER COHESION COUNTRIES?
— *João Amador, Sónia Cabral, José Ramos Maria*
- 15/07** INFLATION (MIS)PERCEPTIONS IN THE EURO AREA
— *Francisco Dias, Cláudia Duarte, António Rua*
- 16/07** LABOR ADJUSTMENT COSTS IN A PANEL OF ESTABLISHMENTS: A STRUCTURAL APPROACH
— *João Miguel Ejarque, Pedro Portugal*
- 17/07** A MULTIVARIATE BAND-PASS FILTER
— *João Valle e Azevedo*
- 18/07** AN OPEN ECONOMY MODEL OF THE EURO AREA AND THE US
— *Nuno Alves, Sandra Gomes, João Sousa*
- 19/07** IS TIME RIPE FOR PRICE LEVEL PATH STABILITY?
— *Vítor Gaspar, Frank Smets, David Vestin*

20/07 IS THE EURO AREA M3 ABANDONING US?
— *Nuno Alves, Carlos Robalo Marques, João Sousa*

21/07 DO LABOR MARKET POLICIES AFFECT EMPLOYMENT COMPOSITION? LESSONS FROM EUROPEAN COUNTRIES
— *António Antunes, Mário Centeno*

2008

1/08 THE DETERMINANTS OF PORTUGUESE BANKS' CAPITAL BUFFERS
— *Miguel Boucinha*

2/08 DO RESERVATION WAGES REALLY DECLINE? SOME INTERNATIONAL EVIDENCE ON THE DETERMINANTS OF RESERVATION WAGES
— *John T. Addison, Mário Centeno, Pedro Portugal*