Banco de Portugal
EUROSISTEMA

Estudos e Documentos de Trabalho

Working Papers

4 | 2008

THE EFFECTS OF LOW-COST COUNTRIES ON PORTUGUESE MANUFACTURING IMPORT PRICES

Fátima Cardoso
Paulo Soares Esteves

March 2008

Please address correspondence to
Fátima Cardoso
Email: fcardoso@bportugal.pt
Paulo Soares Esteves
Email: pmesteves@bportugal.pt
Economics and Research Department
Banco de Portugal, Av. Almirante Reis no. 71, 1150-012 Lisboa, Portugal;
Tel.: 351 213 130 129

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 978-989-8061-29-4

The effects of low-cost countries on Portuguese manufacturing import prices*

Fátima Cardoso†
Paulo Soares Esteves†

March 2008

Abstract

This paper estimates the direct effect of low-cost countries on Portuguese manufacturing import prices, using detailed data both by product and by geographical market for the period 1997-2006. The results point to a negative but modest direct effect when compared with studies available for other countries. This is understandable given the lower share of low-cost countries in Portuguese imports. However, besides this direct effect, import prices were influenced by several other factors, some also related to the increasing presence of low-cost countries in international markets. Overall, this lower direct effect was not reflected in a differentiated evolution of manufacturing import prices in Portugal as its evolution was very close to the average of the euro area countries.

JEL classification: E31, F15
Keywords: Import prices, globalization.

1. Introduction

The increasing participation in international trade of developing countries with very low production costs is often pointed out as a reason to explain why manufacturing import prices have recorded a very contained growth in recent years – Kamin et al. (2004) present estimations of the effect of China on the import prices of 26 countries over the period 1993-2002. This phenomenon of downward external impulse on measured inflation is associated with a simple composition effect: cheaper products from some developing countries are increasing their share in total imports, negatively affecting the average unit value of imports.

---

* We are grateful to Pedro Próspero for computational assistance on the use of the disaggregated external trade data provided by Instituto Nacional de Estatística. We would like to thank Sónia Cabral and Patrícia Silva for comments and suggestions. The usual disclaimer applies.
† Banco de Portugal (Economic Research Department).

In line with some studies for other countries [besides Kamin et al (2004), see Røstøen (2004), Sveriges Riskbank (2005), Bank of Finland (2006), Glatzer et al (2006) and ECB (2006)], the objective of this paper is to estimate the direct effect of low-cost countries on Portuguese manufacturing import prices. This is done by using disaggregated data both by product and by geographical market from the Portuguese National Statistical Institute – INE (*Instituto Nacional de Estatística*) for the period 1997-2006.

The paper is organised as follows: Section 2 presents the methodology, emphasizing the caveats of this arithmetical approach. Section 3 discusses the main results, evidencing the differences from the ones available for other countries. Finally, Section 4 concludes.

2. An arithmetical decomposition of the import deflator

External trade deflators are built using a chained price index to measure growth from the previous period.[1] In Portugal this is done by the INE through a Paasche index and thus, in the case of imports, the overall deflator P_m can be written as

$$P_{m,t} = \frac{\sum_{i=1}^{n} p_{m_i,t}\, q_{m_i,t}}{\sum_{i=1}^{n} p_{m_i,t-1}\, q_{m_i,t}} \qquad (1)$$

where p_{mi} and q_{mi} represent the price and quantity of each i component. This overall deflator (index) may be rewritten as a weighted average of the deflators of the several components

$$P_{m,t} = \sum_{i=1}^{n} \frac{p_{m_i,t}}{p_{m_i,t-1}} \omega_{m_i,t} \quad , \quad \omega_{m_i,t} = \frac{p_{m_i,t-1}\, q_{m,t}}{\sum_{i=1}^{n} p_{m_i,t-1}\, q_{m,t}} \qquad (2)$$

Hence, the computation of the import deflator will depend on the estimated price for each i component and on its weight on the current quantities (evaluated at basis prices). This is done by using unit values figures at a very disaggregated level. The direct use of these detailed unit values may lead to aggregate figures slightly different from the official external trade deflators, due to quality adjustment procedures and correction of outliers that are usually done on these unit values.

[1] For more information concerning the computation and the use of the external trade deflators, see Dridi and Zieschang (2002).

Following this approach, a Paasche index was computed based on unit values at the most detailed available level of the external trade nomenclature (8-digit of Combined Nomenclature), covering around 8000 different manufactured products, and excluding outliers, defined as the items whose unit values rose more than 100 per cent or fell by more than 50 per cent in each year. Then, an import deflator was computed for a group of trading partners excluding the economies classified as low-cost countries, which were selected as the ones having a price level less than 75 per cent of the Portuguese one.[2] The difference between these two import deflators (the overall and the one excluding low-cost partners) is used as a measure of the direct effect of low-cost countries imports.

Of course, this arithmetical decomposition should be interpreted carefully, constituting probably a lower bound for the total effect of low-cost countries on import prices. Firstly, this estimation is just a rough measure of the direct effect, given that it does not account for the products arriving indirectly from low-cost countries, as they are registered as imports from other economies. Secondly, this measure does not account for indirect effects on the export prices of developed countries.

3. Results

How much is the share of imports from low-cost countries?

Table 1 presents the weights in Portuguese manufacturing imports of the 41 countries defined as low-cost, for the period 1998-2006. The weight of these countries in Portuguese manufacturing imports recorded a sustained increase, especially in the most recent years. This increase was broadly based across all manufacturing sectors, with the exception of "food and beverages". The textiles, clothing and footwear are the ones where the share of imports from low-cost countries records the highest figure (close to 16 per cent in 2006). The item "mineral and metal products" is also a manufacturing sector where this share was above 10 per cent in 2006.

Table 2 compares the weight of these countries in manufacturing imports of several euro area countries. Portugal is the country where this share is smaller (both in levels and in accumulated variations), and this difference is basically explained by the low weight of imports arriving from China and from Central and Eastern Europe. This notable difference between Portugal and the other euro area countries may be related to some geographical features or to a more similar specialization between Portugal and those developing countries [Esteves and Reis (2005)].

[2] Using Purchasing Power Parity data from the IMF's World Economic Outlook for the period 1995-2006, 41 countries were classified as low-cost countries according to this criterion: Albania, Algeria, Argentina, Bangladesh, Belarus, Bolivia, Brazil, Bulgaria, Cameroon, China, Colombia, Côte d'Ivoire, Czech Republic, Egypt, Estonia, Hungary, India, Indonesia, Kazakhstan, Kenya, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Malaysia, Morocco, Nigeria, Pakistan, Paraguay, Peru, Philippines, Poland, Romania, Russia, Slovak Republic, Sri Lanka, Thailand, Tunisia, Turkey, Ukraine and Vietnam.

Table 1 – Portuguese weights of imports from low-cost countries
(manufacturing products, %)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	*average*	*variation (in p.p.)*
Total manufacturing	5.8	5.4	6.3	6.5	6.8	6.8	6.9	7.5	8.6	6.7	2.9
Food and beverages	8.7	8.8	7.4	7.2	6.4	7.5	7.5	7.7	7.5	7.6	-1.3
Textiles, clothing and footwear	13.3	11.9	13.0	14.7	13.0	13.4	14.5	14.7	16.1	13.8	2.8
Wood, cork, pulp and paper	6.0	6.9	6.9	6.9	7.5	6.8	9.2	8.5	7.6	7.4	1.7
Chemical products	2.3	2.4	3.4	3.3	3.3	3.2	3.5	4.5	4.6	3.4	2.3
Rubber, plastic products	3.8	4.1	4.2	4.3	4.3	5.1	5.1	5.5	6.2	4.7	2.5
Mineral and metal products	7.0	7.2	8.0	8.8	9.5	10.3	9.1	11.8	13.8	9.5	6.8
Machinery and equipment	3.3	3.2	3.5	3.2	4.6	4.3	4.5	5.0	6.4	4.2	3.1
Transport equipment	3.9	3.4	6.7	7.3	8.0	7.0	6.9	6.5	7.9	6.4	4.0
Other products	6.6	6.7	8.0	7.8	7.9	8.4	9.4	9.5	9.7	8.2	3.1

Source: INE.

Table 2 – Weights of imports from low-cost countries
(manufacturing products, %)

	all 41 countries			of which					
				Central and Eastern Europe[1]			China		
	1998	2006	*var*	1998	2006	*var*	1998	2006	*var*
Austria	9.9	14.3	4.3	8.0	10.2	2.1	1.0	2.8	1.8
Belgium-Luxemburg[(*)]	9.0	12.9	3.9	3.0	4.8	1.8	2.3	4.7	2.4
Finland	8.8	20.4	11.6	5.6	10.2	4.7	1.7	7.6	5.9
France [(*)]	12.8	20.3	7.5	3.7	7.4	3.7	2.8	5.7	2.9
Germany	16.8	24.4	7.6	10.1	13.7	3.6	3.1	7.4	4.3
Greece	10.6	17.8	7.2	5.2	9.1	4.0	2.5	5.2	2.7
Ireland	4.6	8.4	3.9	0.9	2.4	1.5	1.5	3.8	2.3
Italy	12.9	23.3	10.4	5.7	10.8	5.2	2.7	7.2	4.4
Netherlands	11.2	24.4	13.2	3.4	5.1	1.6	2.5	13.1	10.6
Portugal	5.1	8.1	3.0	1.4	3.4	2.0	0.9	1.9	1.0
Spain	7.5	16.0	8.5	2.0	5.4	3.4	2.4	6.3	3.9

[1] Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Russia, Slovakia, Turkey and Ukraine.
[(*)] First available year is 1999. In the case of France, shares are computed in total imports of goods.

Note: The differences observed in Portuguese import shares between table 1 and table 2 are due to different data sources.

Source: World Trade Atlas.

Effects on manufacturing import prices

Table 3 presents the estimates of the direct effect on Portuguese manufacturing import prices following the methodology presented in section 2 for the period 1998-2006. As expected, the overall effect is negative, in particular from 2003 onwards – the positive figure for 2006 is an exception, which is related to a positive inflation differential of imports from low-cost countries that more than offset the downward pressures associated with the rise of the share of low-cost countries in imports (a formal decomposition of the overall effect into these two terms is presented below).

Table 3 – Effects of low-cost countries on import deflators
(percentage points)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	Average
Total manufacturing	-0.4	-0.1	0.5	0.0	-0.1	-0.7	-0.6	-0.4	0.3	-0.2
Food and beverages	-0.8	-0.1	1.0	0.1	0.1	-0.5	0.1	-0.3	0.4	0.0
Textiles, clothing and footwear	-1.4	-1.1	1.5	0.2	-1.5	-0.7	-0.8	-1.1	0.9	-0.5
Wood, cork, pulp and paper products	-0.2	0.0	0.7	-0.1	0.0	-0.8	0.9	0.2	0.7	0.2
Chemical products	0.0	0.1	0.5	-0.6	-0.2	-0.3	-0.2	0.4	0.3	0.0
Rubber, plastic products	-0.1	-0.9	-0.1	0.2	0.2	-1.3	-0.8	0.2	0.4	-0.2
Mineral and metal products	-0.3	-0.1	0.5	-0.4	-0.2	0.7	1.0	-1.3	-1.3	-0.2
Machinery and equipment	-0.4	0.0	-0.3	0.3	-0.1	-1.1	-1.1	-0.4	0.6	-0.3
Transport equipment	-0.4	0.7	1.2	-0.3	0.2	-1.1	-1.8	-0.1	-0.1	-0.2
Other products	-0.1	0.3	-1.2	0.4	0.3	-1.0	-0.6	-1.3	-0.4	-0.4

According to these estimates, imports from low-cost countries made a direct contribution to an annual average reduction in the growth of manufacturing prices of around 0.2 percentage points (p.p.) (0.4 p.p. from 2003 onwards). Among the several sectors considered, this negative effect was more important in textiles, clothing and footwear (an annual average of -0.5 p.p.).

This direct effect seems to be rather small, when compared with the several estimates produced for other countries following the same type of methodology.

Kamin et al. (2004) estimated that the rising share of China in US imports had a downward effect of about 1 p.p. in import price changes, in annual average terms, over the period 1993-2002. Applying the same methodology to 26 countries, they estimate an annual average impact of China in import prices growth of -0.25 p.p. (-0.1 p.p. for Portugal) with higher impacts of about -1.0 p.p. on countries with the strongest trading links with China (US, Korea, Japan).

Higher effects are also reported in other recent studies for some specific countries. Bank of Finland (2006) estimates that imports from low-cost countries have slowed the annual increase in Finish import prices of industrial goods by approximately 1 p.p. between 1996 and 2005, mostly concentrated after 2000. An annual average effect of -0.7 p.p. in the Austrian manufacturing import price growth rates in the period 1995-2005 is reported by Glatzer et al (2006). These results are broadly in line with the ones reported by the Sveriges Riskbank (2005) for Sweden and in Røstøen (2004) for Norway. As expected, the results for the euro area, as a whole, point to a stronger effect, given the exclusion of the intra-trade flows and, thus, the higher share attributed to low cost countries. ECB (2006) estimates a sizeable dampening in overall euro area import price growth of approximately 2 p.p. per year on average over 1996-2005.

As Kamin et al. (2004) empirically documented for several countries, the smaller direct effect estimated for Portugal is related to the lower importance of imports arriving directly from countries characterized by low production costs.

The influence of this share in the results could be easily formalized, considering that each unit value item used to compute the import deflator may be represented as an aggregation of imports from two countries, the high-cost (h) and the low-cost (l) groups, i.e. $p_t = w_{ht}p_{ht}+w_{lt}p_{lt}$. In this case, it is easy to write the direct contribution of the low cost group (Δp_t - $\Delta p_{h\ t}$) as the sum of two terms.

$$\Delta p_t - \Delta p_{ht} = w_{lt}\left(\Delta p_{lt} - \Delta p_{ht}\right) + \Delta w_{lt}\left(p_{lt-1} - p_{ht-1}\right) \tag{3}$$

The first is a price effect, reflecting the inflation differential between low and high-cost countries. Its signal is determined by this inflation differential, and thus it is not possible to get a general relation between the estimated effect and the initial share of imports from low-cost countries. The second term is a share effect, reflecting the variation of weights used to aggregate the different price levels of the two sets of countries. As $p_l<p_h$, this effect will depend negatively on the evolution of low-cost countries share in imports.

4. Conclusions

Several studies analyze the downward impact on import prices of developed countries stemming from the rising share of low-cost countries on imports. Following the same type of methodology, this article presents an estimate of this direct effect on Portuguese manufacturing import prices for the period 1998-2006.

Detailed external trade data (values and quantities) were used to calculate unit value annual indices (Paasche indices) of manufactured goods (total and main groups of products) considering alternatively the imports from all countries and the imports from a group of countries that excludes those with lower production costs. The difference between these two indices gives an estimate of the direct contribution of low-cost countries to the evolution of import prices.

The results point to a negative but modest effect: -0.2 p.p., on average, in the annual growth rates of manufacturing import prices (-0.4 p.p. from 2003 onwards). The results available for the US and other European countries point to a higher effect (around -1 p.p.). As expected, this difference is related to the lower share of these countries in Portuguese imports, both in levels and in variations.

Across euro area countries, Portugal is the one where the share of low-cost countries in total manufacturing imports records the smallest figure, reflecting mainly the smaller share of imports from China and from Central and Eastern Europe. Some geographical features and a more similar specialization between Portugal and those developing countries are possible explanations for this notable difference.

Finally, it should be stressed that this estimate just accounts for the mechanical effect on import prices related to the products coming directly from low-cost countries. Besides other factors affecting import prices, this estimation does not account for the products arriving indirectly from low-cost countries and for indirect effects on the export prices of developed countries. Overall, it should be stressed that this lower direct effect was not translated into a differentiated evolution of import prices – using data from Eurostat, the growth of Portuguese manufacturing import prices was very close to the average of the euro area countries.

References

Bank of Finland (2006), *"Finish import prices and globalization"*, Bank of Finland Bulletin, 3/2006, Box 7, pp. 58-59.

Didri, J. and K. Zieschang (2002), *"Compiling and using export and import price indices"*, IMF Working Paper/02/230, December 2002.

ECB (2006), *"Effects of the rising trade integration of low-cost countries on euro area import prices"*, ECB monthly Bulletin, August 2006, Box 6, pp. 56-57.

Esteves, P. S. e C. Reis (2005), "*Measuring export competitiveness: revisiting the effective exchange rate weights for the euro area countries*", Banco de Portugal Working Papers, 11, May 2006.

Glatzer, E., E. Gnan and M. T. Valderama (2006), "*Globalization, Import Prices and Producer Prices in Austria*", Oesterreichische Nationalbank Monetary Policy & the Economy, Q3/06.

Kamin, S. B., M. Marazzi and J. W. Schindler (2004), "*Is China exporting deflation*?", Board of Governors of the Federal Reserve System, International Financial Discussion Papers, No 791.

Røstøen, J. (2004), "*External price impulses to imported consumer goods*", Norges Bank Economic Bulletin 3/2004, pp. 96-102.

Sveriges Riskbank (2005), *"Why are Swedish import prices so low?"*, Inflation Report 2/2005, pp.42-45.

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 Sarmento*

4/00 LABOR MARKETS AND KALEIDOSCOPIC 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 EUROSYSTEM: 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*

2004

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 N 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 ACOUNTING FOR THE HIDDEN ECONOMY: BARRIERS TO LAGALITY 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 Geraldes 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 Rumler, 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. Kwapil, 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*

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*

3/08 UNEMPLOYMENT BENEFITS AND RESERVATION WAGES: KEY ELASTICITIES FROM A STRIPPED-DOWN JOB SEARCH APPROACH
— *John T. Addison, Mário Centeno, Pedro Portugal*

4/08 THE EFFECTS OF LOW-COST COUNTRIES ON PORTUGUESE MANUFACTURING IMPORT PRICES
— *Fátima Cardoso, Paulo Soares Esteves*