

## **DECISION ON RIO CONDITIONS FOR 2008**

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## I FRAMEWORK

1. On 2007.11.16, ICP-ANACOM asked PT Comunicações, S.A. (PTC), pursuant to article 108, paragraph 1, of Law no. 5/2004, of 10 February (ECL) for information deemed necessary to update analyses developed by this Authority in the scope of interconnection, specifically aiming for an early definition of conditions for the RIO 2008.
2. This communication referred also that PTC was entitled to submit any other relevant data, as well as a price proposal for 2008.
3. PTC conveyed on 2007.12.07<sup>1</sup> all elements requested by ICP-ANACOM, a new communication having been received on 2007.12.21<sup>2</sup> with an interconnection pricing proposal for 2008, which is mainly characterised by:
  - (i) **Call origination and termination** - equal prices are maintained for both services, with a decrease, at simple and double tandem levels, of the activation price (-2%) and price per minute (-9% and -3%, respectively) and an increase at local level of the activation price (+2%) and price per minute (+4%);
  - (ii) **Capacity-based interconnection** - capacity-based interconnection prices are updated taking into account the pricing proposal presented for time-based interconnection and the method proposed by PTC to define the price per month per interconnection unit for each level (local, simple tandem and double tandem), based on the average duration of calls per time slot and on the weight of peak hour traffic on the total traffic;
  - (iii) **Billing, charging and bad debt liability** – increase of prices for this service, both for calls with shared costs where the call price is lower than or equal to local PT (as defined in PTC's tariffs) and for other services, respectively by 8,8% and 6,1%;
  - (iv) **Access to audio text services** – the €0.0050 supplement per call is maintained;
  - (v) **Origination in public payphones** – increase of the current augmentation factor from 1.5 to 18;
  - (vi) **Access to switched data transfer services** – conditions currently in force are maintained;
  - (vii) **Pre-selection** – Increase of the operator pre-selection activation price by 77.8%, from €2.12 to €3.77;

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<sup>1</sup> PTC's communication with reference ANACOM 74579/2007 of 2007.12.10.

<sup>2</sup> PTC's communication with reference ANACOM 77453/2007 of 2007.12.21

- (viii) **Portability** – PTC presents unit cost estimates for 2008, requesting ICP-ANACOM to clarify prices to be applied both by PTC as regards numbers ported to other OSP and by other OSP as regards numbers ported to PTC;
  - (ix) **Management, operation and maintenance** – price increase of several management, operation and maintenance services, which results for the most part from the proposal to change the calculation method of cost of activities associated to each service (which would now be based on the average man-hour cost of areas/departments in charge of such services and not on the man-hour cost per labour force class, as has been the case so far).
4. Further to the referred two communications from PTC, ICP-ANACOM requested of that company, on 2007.01.15 some clarifications on the information provided, as well as additional data, which were submitted by PTC on 2007.01.22.
  5. By determination of 2008.03.19, the Board of Directors of ICP-ANACOM decided to hear interested parties on the draft decision the Authority intended to issue. Comments received, the respective analysis and reasoning of the decision are included in the “*Report of the prior hearing on the draft decision of 2008.03.19 on RIO conditions for 2008*” which is an integral part hereof.
  6. The following section of this document presents an analysis of PTC’s proposal and of conditions practised nowadays, taking also into consideration the European context, especially at the level of pre-accession countries of the European Union (EU 15).

## II. ANALYSIS

7. On 2007.07.16, PTC made available the results of the analytical accounting system for 2006, no further annual information having been provided for the purpose of the analysis of RIO 2008. These AAS data for 2006 have already been analysed by ICP-ANACOM for the purposes of determination of 2007.11.07, concerning RIO 2007.
8. Accordingly, this analysis takes into account AAS data for 2006, the proposals and information presented by PTC relatively to RIO 2008, the European context and obligations that, by determination of 2004.12.17<sup>3</sup>, on the imposition of obligations in respect of the wholesale markets for call origination and termination in the public telephone network at a fixed location, were imposed on the companies of the PT Group operating in the referred markets. These measures include an obligation to control prices and to publish information in a transparent manner, which results in the obligation to publish a reference interconnection offer and to publish the prices, terms and conditions associated with the wholesale services covered by this offer.

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<sup>3</sup> See

[http://www.anacom.pt/streaming/8.9final.pdf?categoryId=138582&contentId=250987&field=ATTACHED\\_FILE](http://www.anacom.pt/streaming/8.9final.pdf?categoryId=138582&contentId=250987&field=ATTACHED_FILE)

## II.A PRICES FOR CALL ORIGATION AND TERMINATION SERVICES

### II.A.1 Interconnection prices and reasoning given by PTC

9. Prices for call origination and termination proposed by PTC for 2008 are presented in the table below, compared to RIO 2007 prices defined for the same services:

**Table 1 – Comparison between call origination and termination prices defined in the RIO 2007 as from 26/03/07 and those proposed by PTC for the RIO 2008**

Level	Call activation		Price per minute			
			Peak hours		Off-peak hours	
Local	0.50 → 0.51	+2.0%	0.39 → 0.40	+2.6%	0.20 → 0.21	+5.0%
Simple Tandem	0.57 → 0.56	-1.8%	0.63 → 0.57	-9.5%	0.32 → 0.29	-9.4%
Double Tandem	0.66 → 0.65	-1.5%	1.05 → 1.02	-2.9%	0.56 → 0.54	-3.6%

Figures in Euro cents (no VAT included). Charge by the second from the first second.  
Peak hours: 9a.m.-7 p.m.; Off-peak hours: 7 p.m.-9 a.m.

10. It thus appears that PTC's proposal (i) maintains equal prices for call origination and termination prices, (ii) increases activation prices and prices per minute of calls at local level (on peak and off-peak hours), (iii) decreases activation prices and prices per minute of calls at simple tandem and double tandem level (on peak and off-peak hours).
11. According to PTC, the proposed tariff entails a revenue reduction by [SCI]<sup>4</sup> [ECI]<sup>5</sup> in the call termination service and by [SCI] [ECI] in the call origination service, with an average overall revenue reduction by [SCI] [ECI].
12. As mentioned already by ICP-ANACOM in the past, in the scope of annual RIO revisions (namely the decision on RIO 2006), variations between average interconnection prices resulting from different tariffs must be estimated on the basis of a constant traffic structure, in order to isolate the effect of a tariff change, in view of the fact that the use of traffic data from different sources misrepresents the impact of a tariff change, which is concealed by the effect of traffic variation. Therefore, as estimates of average price variations in PTC's proposal were based on different traffic structures<sup>6</sup>, it is deemed that they do not represent the actual reality, and thus PTC's proposal, given the traffic profile the company itself indicated for 2008, entails an average overall reduction of interconnection revenues of merely [SCI] [ECI] (corresponding to variations by [SCI] [ECI] for call termination and by [SCI] [ECI] for call origination), that is, less 2.2% than the figure presented by that company.
13. To estimate costs for 2008, PTC relied on the Global Costing Model, the main inputs for these estimates being:
- (i) Operation budget for 2008, as base for accounting resources;

<sup>4</sup> Start confidential information.

<sup>5</sup> End confidential information.

<sup>6</sup> Specifically, estimates of average revenues for 2007 were based on traffic profiles for the 3<sup>rd</sup> quarter of that year, and estimates for average revenues for 2008 were based on estimated traffic profiles for this year.

- (ii) Investment budget for 2007 (including realization available for 2007) and 2008, for the purpose of the calculation of variations induced in depreciations and net value of fixed assets;
  - (iii) Telecommunication services sales volume expected for 2008 as regards installation, traffic and parks (namely access and leased lines);
  - (iv) Results expected for 2008, updated with the cost of capital method mentioned by ICP-ANACOM: calculation and allocation of the cost-of-capital used in 2004 and not reclassified in a specific record of pre-selection fixed assets;
  - (v) Rate of return on invested capital of [SCI] [ECI], based on updated risk-free interest rate estimates (10 year treasury bond) and *Euribor* (3 month rates) and the most recent available figures (October 2007), and gearing adjustment for a medium-term loan taken up recently by PTC;
  - (vi) Allocation of 1/11 of total annual curtailment costs between 2003 and 2008, the amount for 2006 being [SCI] [ECI] million Euros and estimates for 2007 and 2008 being [SCI] [ECI] and [SCI] [ECI] million Euros, respectively.
14. PTC has presented estimates which are based on cost of capital optimisation methods according to (i) figures for the privatization stage; and (ii) accounting value. Relatively to the cost of capital optimisation method, ICP-ANACOM has made PTC aware, in the scope of previous analyses, that it only considers the evaluation for accounting purposes, restating this position here. For this reason, this analysis shows only figures submitted by PTC based on a cost of capital optimisation method according to an accounting value.
15. The following table summarizes cost estimates presented by PTC for interconnection services (origination and termination)<sup>7</sup>, as well as average weighted figures estimated by ICP-ANACOM based on the traffic structure foreseen by PTC for 2008:

**Table 2 – Unit costs estimated by PTC for 2008 [SCI]**

Figures in Euro cents	Origination				Termination				Interconnection – Weighted Total			
	L	ST	DT	Weighted Average	L	ST	DT	Weighted Average	L	ST	DT	Weighted Average
Direct unit costs												
Joint unit costs												
Common unit costs												
TOTAL UNIT COSTS												

[ECI] Source: PTC and calculations made by ICP-ANACOM (weighted average)

<sup>7</sup> Note: In the interest of simplification and to make clear the results presented throughout this document, these results have been rounded, the base for calculation taking into consideration the effective value with decimal places. For this reason, tables occasionally show differences between calculations based on stated figures and effective calculations and actual figures.

16. Unit costs for 2008, as submitted by PTC, represent, relatively to AAS results for 2006, a decrease by [SCI] [ECI] for the origination service and [SCI] [ECI] for the termination service, considering only the sum of direct and joint costs, thus entailing business efficiency gains, as the shown by the table below:

**Table 3 – Comparison of direct + joint unit costs for 2006 with costs estimated by PTC for 2008 [SCI]**

	LOCAL		SIMPLE TANDEM		DOUBLE TANDEM		WEIGHTED AVERAGE	
ORIGINATION								
TERMINATION								
INTERCONNECTION TOTAL								

[ECI] Figures in Euro cents. Source: PTC and calculations made by ICP-ANACOM

17. Taking common costs into account also, total unit costs estimated by PTC for 2008 entail a reduction of approximately [SCI] [ECI] for the origination service and [SCI] [ECI] for the termination service (see table below).

**Table 4 – Comparison of common costs for 2006 with costs estimated by PTC for 2008 [SCI]**

	LOCAL		SIMPLE TANDEM		DOUBLE TANDEM		WEIGHTED AVERAGE	
ORIGINATION								
TERMINATION								
INTERCONNECTION TOTAL								

[ECI] Figures in Euro cents. Source: PTC and calculations made by ICP-ANACOM

18. As regards traffic volume expected for 2008, PTC's estimates assume a decrease by approximately 7% in the overall interconnection traffic volume relatively to traffic in 2006. By comparison with traffic volume for 2007<sup>8</sup>, there is an increase by approximately 6.5%. The following table shows PTC's estimates for time-based interconnection traffic volume for 2008, as well as those for 2006 and 2007, and the respective variations.

**Table 5 – PTC interconnection traffic volume [SCI]**

	2006	2007	PTC's Estimates 2008	Variation 2007 by comparison with 2006	Variation PTC's Estimates 2008 by comparison with 2007
Local				-15.2%	2.4%
Simple Tandem				-8.9%	14.9%
Double Tandem				8.3%	24.8%
Total				-12.9%	6.5%

[ECI] Figures in million minutes. Source: PTC.

19. Specifically analysing the evolution of quantities in the origination and termination services, PTC estimates for 2008, given results for 2007, variations by -5.5% for the origination service and 13.9% for the termination service (see table below).

<sup>8</sup> Based on information traffic during the 4<sup>th</sup> quarter of 2007, as submitted by PTC on 2008.04.09.

**Table 6 - PTC interconnection traffic volumes broken down by service (origination and termination) [SCI]**

	2006	2007	PTC's Estimates 2008	Variation 2007 by comparison with 2006	Variation PTC's Estimates 2008 by comparison with 2007
Origination				-21.5%	-5.5%
Termination				-6.6%	13.9%
Total				-12.9%	6.5%

[ECI] Figures in million minutes. Source: PTC.

20. As far as traffic quantities are concerned, based on available information on the volume of routed traffic by the end of 2007<sup>9</sup>, ICP-ANACOM has made a forward analysis to estimate the amount of traffic for 2008, based on the application of a year-on-year variation (2006-2007), corrected by the traffic evolution trend of the last few years (evolution of annual variations between 2002 and 2006). The table below presents ICP-ANACOM's estimates for overall interconnection traffic for 2008 and respective deviations from the past year.

**Table 7 – ICP-ANACOM interconnection traffic volumes [SCI]**

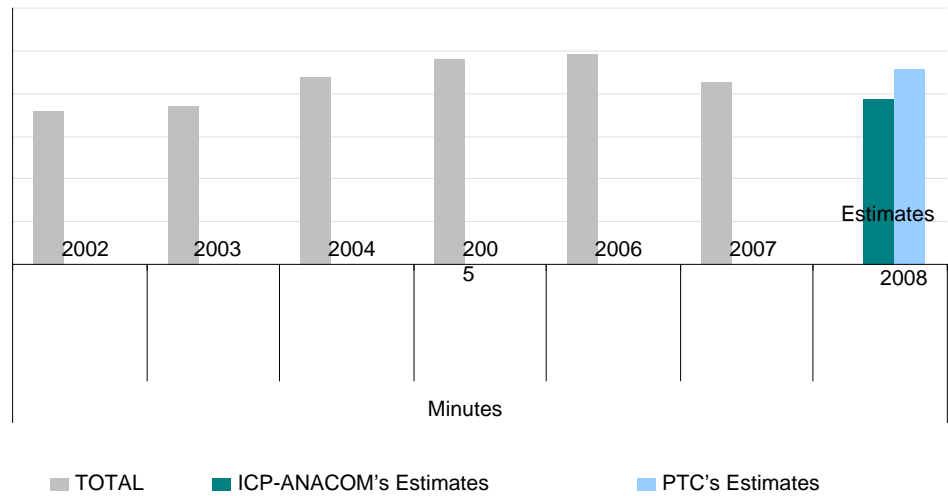
	2006	2007	ICP-ANACOM's Estimates 2008	Variation 2007 by comparison with 2006	Variation ICP-ANACOM's Estimates by comparison with 2007
Origination				-21.5%	-15.0%
Termination				-6.6%	-6.1%
Total				-12.9%	-9.5%

[ECI] Figures in million minutes. Source: PTC

21. As shown above, given the figures for 2007, estimates prepared by ICP-ANACOM for 2008 represent a decrease in the overall interconnection traffic by approximately 9.5%, resulting from reductions by approximately 15% for the origination service and 6% for call termination.
22. The following graphic illustrates the evolution of traffic volumes between 2002 and 2007, including ICP-ANACOM's and PTC's estimates for 2008.

<sup>9</sup> Made available by PTC, as mentioned above, on 2008.04.09, some figures previously conveyed to this Authority having been corrected by PTC.

**Graphic 1 – Evolution of interconnection traffic volumes**  
Million minutes



Source: Data from PTC and ICP-ANACOM's and PTC's estimates.

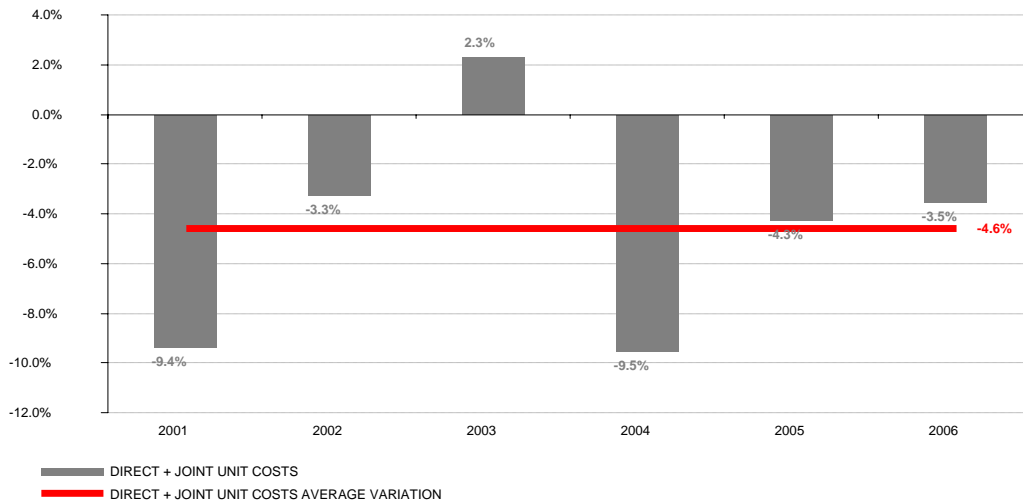
23. In the light of the above, and taking into consideration that ICP-ANACOM's estimates may be understated (given the significant weight of the reduction of volumes between 2006 and 2007 in the calculation of the referred estimates), PTC's estimates for interconnection traffic volume for 2008 were accepted, having been deemed to represent adequately the evolution of interconnection services.
24. Taking into consideration the access by PTC to more detailed information on the distribution of traffic according to different grades and time slots defined in the tariff, ICP-ANACOM resorted to the traffic profile estimated by PTC for average call duration and traffic distribution according to the different interconnection grades and time slots, and in addition it was assumed that, in the absence of a better approximation, the duration of calls would take a negative exponential distribution.
25. Estimates used in the analysis take also into consideration the traffic originated from virtual cards and traffic to non-geographic services of other operators, in view of the fact that PTC has not proved that this type of traffic and call origination traffic have a different structure. Moreover, within the RIO, the tariffs that apply to call origination in the above-mentioned situations are the same, and thus it is appropriate to use overall volumes to estimate origination volumes for 2008.

## II.A.2 Costs estimated by ICP-ANACOM for origination and termination services

26. The starting point was the analysis of the annual variation of direct and joint unit costs of the origination and termination services. As shown by the following graphic, the evolution of these costs during 2000-2006, according to PTC's AAS results for that period (and taking into account traffic profiles foreseen for 2008) represents an average variation for services under consideration by -4.5% (specifically, -5.6% for call origination and -4.2% for call termination).



**Graphic 2 – Direct + joint unit costs of origination and termination services and respective annual variations for 2000-2006**



Source: PTC's AAS and interconnection traffic profiles estimated by PTC for 2008.

27. Accordingly, when preparing cost estimates for 2008, an annual decrease of direct and joint unit cost by 5% relatively to the AAS 2006 results was considered, results achieved being presented in the table below. Note that the AAS 2006 results used in the analysis (which are the most recent annual results available at the moment) were adjusted by that company to reflect the costs that would result from the cost of capital achieved according to the method used in 2004 and previous years, without the reclassification of pre-selection fixed assets introduced by PTC in the AAS results for 2004<sup>10</sup>.

<sup>10</sup> Results submitted by PTC by letter dated 2007.07.16. As referred in analysis supporting determination 2005.12.23, on the draft decision concerning amendments to RIO 2006, PTC performed a “transfer of fixed assets from the pseudo-department “10 – Switching” to the pseudo-department “10PS – Pre-selection”. This transfer is the result of a review of fixed assets after the introduction of a costing system based on network elements, however PTC has failed to explain in detail to which fixed assets it refers and the reason for allocating costs associated to pre-selection traffic”. Thus, as mentioned in the referred document, ICP-ANACOM does not accept the transfer of values indicated by PTC, allegedly associated to pre-selection fixed assets, as this would imply a distribution of such assets by all operators who obtained call origination, even if they do not enjoy that service (call-to-call selected operators or owners of non-geographic numbers accessed from PTC’s network). Moreover, pre-selection was introduced in order to guarantee non-discriminatory conditions in the access to services provided by PTC and by other operators. In this framework, consequently, when considering the distribution of costs among operators, it must take into account the relative weight of all customers/accesses generating traffic. For this reason, it is deemed that this analysis should not consider additional costs associated to pre-selection fixed assets.

**Table 8 - Direct + joint unit costs estimated for 2008 (figures in Euro cents) [SCI]**

	2008			
	LOCAL	SIMPLE TANDEM	DOUBLE TANDEM	WEIGHTED TOTAL
ORIGINATION				
TERMINATION				
INTERCONNECTION TOTAL				

[ECI] Source: ICP-ANACOM's estimates.

28. It should be noted that, as referred above, this analysis is based on the traffic profile estimated by PTC for an average duration of calls and distribution of traffic according to different interconnection grades and time slots.
29. It is considered that costs thus estimated make it possible to take into account the historic evolution of direct and joint costs, as well as the likely cost reduction associated to the development of the activity of an efficient operator. The following table compares figures estimated by PTC and by ICP-ANACOM and estimated deviations from AAS results for 2006.

**Table 9 – Deviation of ICP-ANACOM's estimates of direct and joint costs for 2008 from AAS results for 2006 and from PTC's estimates of direct and joint unit costs for 2008 (figures in Euro cents) [SCI]**

	AAS results for direct + joint costs 2006	ICP-ANACOM's estimates for direct and joint costs 2008	PTC's estimates for direct and joint costs 2008	Deviation of PTC's estimates from 2006 AAS results (%)	Deviation of ICP-ANACOM's estimates from 2006 AAS results (%)
Origination				-13.8%	-8.6%
Termination				-15.5%	-10.3%
Interconnection total				-15.5%	-10.3%

[ECI] Source: Calculation made by ICP-ANACOM based on cost estimates presented by PTC, cost estimates made by ICP-ANACOM and AAS results for 2006.

30. Relatively to common costs, and as referred by ICP-ANACOM on previous occasions (namely in the scope of RIO analyses), it is deemed that the variation at the level of common costs reflects mainly PTC's management policies, not costs that are directly incurred as a result of the provision of certain services. In particular, the level of common costs may be affected by management decisions adopted by PTC in a specific year, thus turning into an uncertainty factor to which alternative operators who purchase interconnection services from PTC may be subject.
31. As there is no reason to make alternative operators subject to any instability due to changes in PTC's internal management (as they would be subject to variations in their inputs costs on account of PTC's internal issues and not as a result of market forces or service evolution), it is deemed that the fluctuations of common costs not specifically associated to the interconnection service provision should not have any impact at the level of interconnection prices.
32. Moreover, it is noted that it is generally accepted at international level that common costs represent around 10% of total costs, as provided for, in fact, in Commission

Recommendation of 1998.04.08<sup>11</sup> (which has been updated in the meantime) on interconnection in a liberalised telecommunications market (Part 2 - Accounting separation and cost accounting), which provides that a well defined cost-allocation system will enable at least 90 % of the costs to be allocated on the basis of direct or indirect cost-causation, in efficient terms and in a long-run approach.

33. In case total estimated costs were considered (including common costs), estimates for 2008 presented by PTC, as well as those prepared by ICP-ANACOM, would compare to 2006 AAS results as shown in the table below (2006 ASS results were corrected so as to assume that common costs represent 10% of the sum of direct and joint costs, this assumption having been applied to ICP-ANACOM's estimates; figures presented by PTC do not take into account this method).

**Table 10 – Deviation of ICP-ANACOM estimates of total unit costs for 2008 from 2006 AAS results and PTC's estimates of total unit costs for 2008 (figures in Euro cents) [SCI]**

	2006 AAS results for total unit costs	ICP-ANACOM's estimates for total unit costs 2008	PTC's estimates for total unit costs 2008	Deviation of PTC's estimates from 2006 AAS results (%)	Deviation of ICP-ANACOM's estimates from 2006 AAS results (%)
Origination				-9.5%	-9.8%
Termination				-9.9%	-9.8%
Interconnection total				-9.8%	-9.8%

[ECI] Source: Calculation made by ICP-ANACOM based on cost estimates presented by PTC, cost estimates made by ICP-ANACOM and AAS results for 2006.

34. In the light of the above, it is restated that the establishment of interconnection prices must only consider direct and joint costs, allowing a final margin which may remunerate on-going common costs. This analysis will thus adopt estimates prepared by ICP-ANACOM, which take into consideration the historical evolution of direct and joint costs and the expected cost decrease associated to an efficient operator's business development. Without prejudice, it is stressed that estimates of total costs presented by PTC are fully in line with figures estimated by ICP-ANACOM for those costs.

### II.A.3 Average margin estimated for 2008 resulting from tariffs provided for in RIO 2007

35. Given the traffic profile estimated by PTC for 2008, ICP-ANACOM estimated the average revenue per minute<sup>12</sup> that would result by maintaining the interconnection tariff (call origination and termination) prevailing since 26/03/07, having obtained the following results:

<sup>11</sup> <http://www.anacom.pt/template20.jsp?categoryId=55037&contentId=87602>

<sup>12</sup> Calculations were based on the assumption that the call duration takes a negative exponential distribution.

**Table 11 - Estimated average revenue per minute resulting from RIO 2007's current tariffs (figures in Euro cents) [SCI]**

	LOCAL	SIMPLE TANDEM	DOUBLE TANDEM	WEIGHTED TOTAL
ORIGINATION				
TERMINATION				
INTERCONNECTION TOTAL				

[ECI] Source: ICP-ANACOM's estimates.

36. Given the revenue indicated in the preceding table and estimated direct and joint unit costs, PTC's overall margin relatively to direct and joint costs for 2008, in case tariffs prevailing since 26/03/07, based in the respective RIO, were maintained, would be approximately 17% (see table below).

**Table 12 – Estimated margins for 2008, in case current RIO 2007 tariffs were applied [SCI]**

	Margins taking direct + joint costs into consideration				
	Traffic (millions of minutes)	Estimated cost (thousands of Euros)	Estimated revenue (thousands of Euros)	Estimated margin (thousands of Euros)	Margin (% estimated cost)
Termination					12%
Origination					26%
Total					17%

[ECI] Source: ICP-ANACOM's estimates

37. Specifically for each interconnection grade, it is estimated that PTC's margins would be as indicated below, assuming for 2008 tariffs currently in force. As can be seen, it is estimated that these margins are lower in the local interconnection grade.

**Table 13 – Estimated margins for 2008, in case the current RIO 2007 tariffs were applied, for each traffic grade [SCI]**

	Traffic (millions of minutes)		Estimated cost considering only direct + joint costs (thousands of Euros)		Estimated revenue (thousands of Euros)		Estimated margin (thousands of Euros) relatively to costs		Margin (% estimated cost)		Overall interconnection
	Term.	Orig.	Term.	Orig.	Term.	Orig.	Term.	Orig.	Term.	Orig.	
Local											13%
Simple Tandem											21%
Double Tandem											18%

[ECI] Source: ICP-ANACOM's estimates

38. The following table presents margins that would result by applying in 2008 the tariff prevailing at the end of 2007, taking into account the estimates of total costs (direct, joint and common costs – assuming that the latter represent at the most 10% of other costs).

**Table 14 – Estimated margins for 2008, in case the current RIO 2007 tariffs were applied, taking into account estimates of total costs [SCI]**

	<b>Margins taking total costs into consideration (total common costs = 10% of the sum of direct and joint costs)</b>				
	Traffic (millions of minutes)	Estimated cost (thousands of Euros)	Estimated revenue (thousands of Euros)	Estimated margin (thousands of Euros)	Margin (% estimated cost)
Termination					2%
Origination					14%
Total					6%

[ECI] Source: ICP-ANACOM's estimates

39. In the light of the above, namely the figures of estimated margins in case the current RIO 2007 tariffs prevailed, it must be concluded that the review of interconnection prices is appropriate and necessary.

## II.A.4 Maximum prices for call origination and termination services in 2008

### II.A.4.1 PTC's proposal

40. Based on ICP-ANACOM's estimates of direct and joint unit costs presented earlier and revenues that result from PTC's proposal for 2008, it is estimated that deviations of the sum of direct and joint costs from revenues for 2008, are 11% for the termination service and 23% for the origination service, which entails an overall margin by 15% for interconnection services, as shown in the table below.

**Table 15 – Deviations estimated for 2008 of direct and joint costs from revenues referred in PTC's proposal for 2008, with ICP-ANACOM's cost estimates and PTC's traffic volume estimates [SCI]**

	<b>Margins taking direct + joint costs into consideration</b>				
	Traffic (millions of minutes)	Estimated cost (thousands of Euros)	Estimated revenue (thousands of Euros)	Estimated margin (thousands of Euros)	Margin (% estimated cost)
Termination					11%
Origination					23%
Total					15%

[ECI] Source: Calculations made by ICP-ANACOM

41. For each interconnection grade, in particular, the expected margin evolution between 2007 and 2008 would be as follows:

**Table 16. Evolution of estimated deviations of direct and joint costs estimated by ICP-ANACOM from revenues that result from the application of RIO 2007 tariffs and from PTC's proposal for 2008**

	Estimates for 2008 based on RIO 2007			Estimates for 2008 based on PTC's proposal		
	Termination	Origination	Total interconnection	Termination	Origination	Total interconnection
Local	10%	20%	<b>13%</b>	13%	24%	<b>16%</b>
Simple Tandem	15%	29%	<b>21%</b>	7%	20%	<b>13%</b>
Double Tandem	9%	62%	<b>18%</b>	5%	57%	<b>15%</b>

Source: Calculations made by ICP-ANACOM

42. It can be seen that although prices resulting from PTC's proposal entail a slight overall margin decrease relatively to figures now estimated for 2007, they represent an increase of the margin associated to local grade. This is not compatible with the necessary incentive to the development of interconnection network infrastructures.
43. It should be noted that in case total costs estimated by ICP-ANACOM were considered, PTC's proposal would lead to an overall margin of around 4.6% (see table below). This fails to comply with the obligation of cost orientation of prices that falls on PTC, namely further to determination of 2007.02.08, which imposed the additional reduction by 10%, and to paragraph 41 of the 2007.11.07 determination on RIO 2007.

**Table 17 – Deviations estimated for 2008 of total costs estimated by ICP-ANACOM from revenues referred in PTC's proposal for 2008 [SCI]**

	Margins taking total costs into consideration (total common costs = 10% of the sum of direct and joint costs)				
	Traffic (millions of minutes)	Estimated cost (thousands of Euros)	Estimated revenue (thousands of Euros)	Estimated margin (thousands of Euros)	Margin (% estimated cost)
Termination					0.8%
Origination					11.7%
Total					4.6%

[ECI] Source: Calculations made by ICP-ANACOM

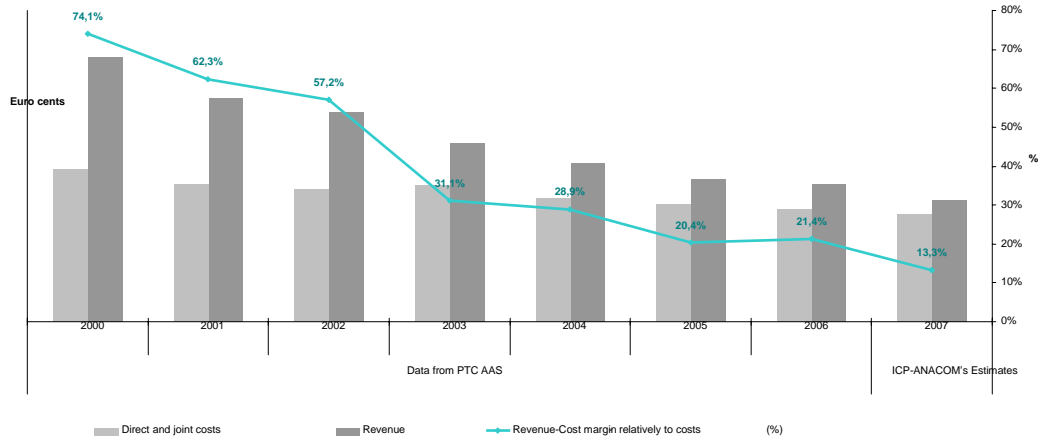
44. In the light of the above, ICP-ANACOM is not in a position to accept the proposal presented by PTC.

#### **II.A.4.1 Maximum prices defined by ICP-ANACOM**

45. Maximum prices presented below are the result of weighing several elements, namely the maintenance of a balance between the need to promote incentives to the development of an independent infrastructure, the promotion of effective competition, the need for interconnection prices that reflect the way interconnection costs occur, regardless of PTC's management policies, and the need to improve the position of prices in PTC's reference proposal in the European context.
46. The new interconnection tariff for 2008 will enter into force on the day the draft decision is approved, that is, on 12 March 2008.
47. As regards common costs, it is considered, as referred earlier, that the overall margin encapsulated in maximum prices must be sufficient to recover common costs of an efficient operator resulting from a situation of competition, in line with EC's understanding on an appropriate approach for the establishment of interconnection prices, which entails the use of long-term incremental costs, not excluding, however, the use of justified margins as means to recover costs.
48. It is also considered that maximum prices should allow the maintenance of a downward trend of the interconnection price margin relatively to direct and joint costs, which has occurred in previous years (see graphic below), as margins of any traffic grade have not increased (local, simple tandem, double tandem). On the other hand and as developed

further in section II.A.5, supplementary margins intended to address any deviations related to unexpected changes in the traffic structure (which is based on PTC forecasts) will no longer be considered.

**Graphic 3 – Evolution of the deviation of PTC’s direct + joint costs from revenues**



Note: Absolute figures and graphic’s scale are deemed to be confidential information.

Revenue estimates for 2007 were achieved taking into account that two different tariffs prevailed that year (the second tariff having been implemented on 2007.03.26).

Source: Calculations made by ICP-ANACOM, based on data from PTC’s AAS and traffic profile estimated by PTC for 2008.

49. Accordingly, it is deemed that maximum interconnection prices to prevail as from 12 March 2008 are as follows:

**Table 18 – Interconnection prices defined by ICP-ANACOM to prevail as from 2008.03.12, for origination and termination services**

Level	Call activation	Price per minute	
		Peak hours	Off-peak hours
Local	0.49	0.38	0.19
Simple Tandem	0.52	0.58	0.29
Double Tandem	0.62	0.99	0.53

Figures in Euro cents (no VAT included). Charge by the second from the first second.  
Peak hours: 9a.m.-7 p.m.; Off-peak hours: 7 p.m.-9 a.m.

50. These maximum prices entail, relatively to the RIO 2007 prices currently in force, approximate average nominal reductions (based on a three-minute call and considering PTC’s forecast traffic profile for 2008) by 4.9% for call termination and by 4.8% for call origination, which corresponds to actual average reductions by 2.8% and 2.7% respectively, taking into account the expected inflation in the State’s Budget for 2008.

51. The following table represents the estimated variation of maximum prices defined to prevail as from 2008.03.12 relatively to RIO 2007 prices currently in force, for a three-minute call.

**Table 19. Variation of ICP-ANACOM's prices defined to come into force on 2008.03.12, for origination and termination services, for a three-minute call, relatively to RIO 2007 prices (in force in December 2007)**

	Termination			Origination			Weighted Interconnection Total
	Peak	Off-peak	Average	Peak	Off-peak	Average	
Local	-2.4%	-3.6%	-2.8%	-2.4%	-3.6%	-2.7%	-2.8%
Simple Tandem	-8.1%	-9.2%	-8.4%	-8.1%	-9.2%	-8.2%	-8.3%
Double Tandem	-5.8%	-5.6%	-5.7%	-5.8%	-5.6%	-5.7%	-5.7%
Average	-4.5%	-5.6%	-4.7%	-5.5%	-5.6%	-5.5%	-5.0%

Source: Calculations made by ICP-ANACOM

52. In case traffic profiles estimated by PTC for 2008 were considered, namely as regards average duration of calls, the average variation of revenues resulting from maximum prices relatively to RIO 2007 prices, which is very close to the variation calculated for a three-minute call, would be as follows:

**Table 20. Variation of interconnection revenues resulting from maximum prices defined to come into force on 2008.03.12, for origination and termination services, based on an average duration call, relatively to RIO 2007 (in force in December 2007)**

	Termination			Origination			Weighted Interconnection Total
	Peak	Off-peak	Average	Peak	Off-peak	Average	
Local	-2.4%	-3.8%	-2.8%	-2.4%	-3.7%	-2.7%	-2.7%
Simple Tandem	-8.2%	-9.1%	-8.4%	-8.2%	-9.1%	-8.3%	-8.3%
Double Tandem	-5.8%	-5.5%	-5.6%	-5.8%	-5.7%	-5.8%	-5.7%
Average	-4.6%	-5.4%	-4.8%	-5.6%	-5.6%	-5.6%	-5.1%

Source: Calculations made by ICP-ANACOM

53. According to estimates of direct and joint unit costs shown above, it is estimated that the deviation of the sum of direct and joint costs from revenues, for 2008 (given the two different tariffs in force this year) entails an overall margin of 12% for all interconnection services, as shown in the table below:

**Table 21 – Estimated deviation for 2008 of the sum of direct and joint costs from revenues resulting from the application of the two tariffs defined by ICP-ANACOM to prevail in 2008, with ICP-ANACOM's cost estimates and PTC's traffic volume estimates [SCI]**

	Margins taking direct + joint costs into consideration				
	Traffic (millions of minutes)	Estimated cost (thousands of Euros)	Estimated revenue (thousands of Euros)	Estimated margin (thousands of Euros)	Margin (% estimated cost)
Termination					7%
Origination					20%
Total					12%

[ECI] Source: Calculations made by ICP-ANACOM

54. It is verified that maximum prices thus defined would allow the maintenance of the margin decrease trend verified in the past, in particular for each interconnection grade, as shown in the table and graphic below, margins for direct and joint costs converging to figures close to 10% for all interconnection grades:

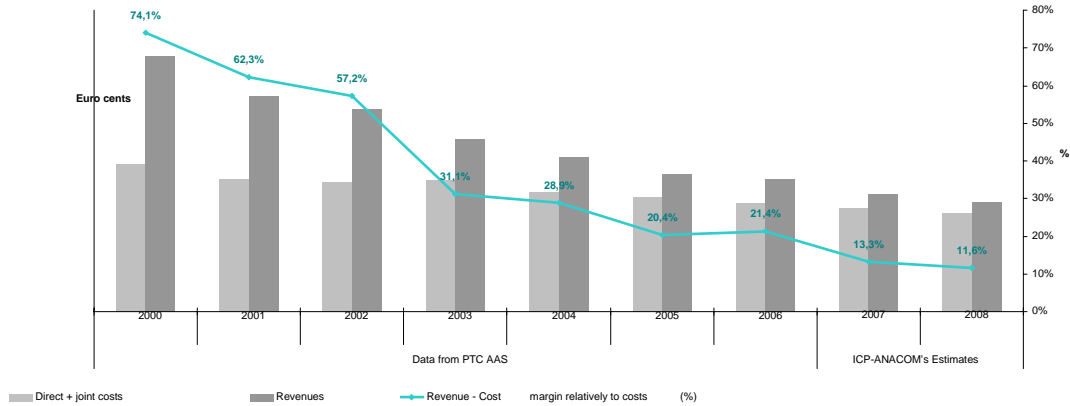


**Table 22 – Evolution of estimated deviations, given direct and joint costs estimated by ICP-ANACOM, of revenues that result from the application of the RIO 2007’s tariffs (in force as from 2007.03.26) in 2008 from those that result from the application of the two tariffs defined by ICP-ANACOM to prevail in 2008**

	Estimates for 2008 based on RIO 2007 (in force as from 2007.03.26)			Estimates for 2008 based on tariffs defined by ICP-ANACOM to prevail in 2008		
	Termination	Origination	Interconnection Total	Termination	Origination	Interconnection Total
Local	10%	20%	<b>13%</b>	7%	17%	<b>10%</b>
Simple Tandem	15%	29%	<b>21%</b>	8%	20%	<b>13%</b>
Double Tandem	9%	62%	<b>18%</b>	4%	54%	<b>13%</b>

Source: Calculations made by ICP-ANACOM

**Graphic 4 – Evolution of the deviation of PTC’s direct + joint costs from revenues**



Note: Absolute figures and graphic’s scale are deemed to be confidential information.

Revenue estimates for 2007 and 2008 were achieved taking into account that two different tariffs prevailed in those years (the second tariff in 2007 having been implemented on 2007.03.26 and new prices for 2008 being proposed to apply as from 2008.03.12).

Source: Calculations made by ICP-ANACOM, based on data from PTC’s AAS and traffic profile estimated by PTC for 2008

55. It is concluded that these maximum prices enable a balance between the need to promote incentives to the development of an independent infrastructure and the promotion of an effective competition, moving also towards ongoing practises in the EU (as shown in the following section), whilst maintaining common costs at the level deemed to be reasonable, as referred above.

#### II.A.5 Consideration of the 10% reduction in interconnection prices, arising from determination of 2007.02.08

56. By determination of 2007.02.28<sup>13</sup>, ICP-ANACOM determined not to oppose the proposal of FTS residential tariff, in the scope of the US, presented by PTC on 28/08/06, provided that, among other conditions, PTC granted a reduction by 10% to each component of the time-based interconnection model (activation price and price per minute), comprising call origination and termination (PTC – indirect access operator). Prices thus reduced would

<sup>13</sup> <http://www.anacom.pt/template31.jsp?categoryId=236004>.

apply to the calculation and setting of the capacity-based interconnection prices. Subsequently, on 2006.03.23, PTC notified ICP-ANACOM that it had published a new RIO version that included the referred price reduction by 10%.

57. In the scope of determination of 2007.02.28, ICP-ANACOM noted also that the reduction by 10% would take place without prejudice to the normal and periodic review of RIO prices, as it concerns the specific possibility of replicating PTC's US tariff.
58. Subsequently, in the determination on alterations to the RIO 2007, ICP-ANACOM decided that the inclusion of the referred reduction by 10% meant that the definition of maximum interconnection prices should be performed without taking into consideration any margin to cushion alterations in the traffic structure (which was considered in the past), this risk having been taken by PTC when it accepted the condition imposed by the determination of 2007.02.28.
59. As the preceding items have evidenced, maximum interconnection prices for 2008 defined herein already reflect this approach, namely as regards the absence of a margin to cushion any traffic profile changes.
60. Therefore, it is concluded that given cost estimates and traffic profiles for 2008, maximum interconnection prices defined herein by ICP-ANACOM allow compliance with cost orientation obligations, as well as with conditions set in determination of 2007.02.28, which, as explained above, establish very low margins (positive but close to zero) in the light of overall costs estimated by ICP-ANACOM, the risk of any deviation of estimated figures from reality (resulting from changes in traffic profiles) being taken by PTC.

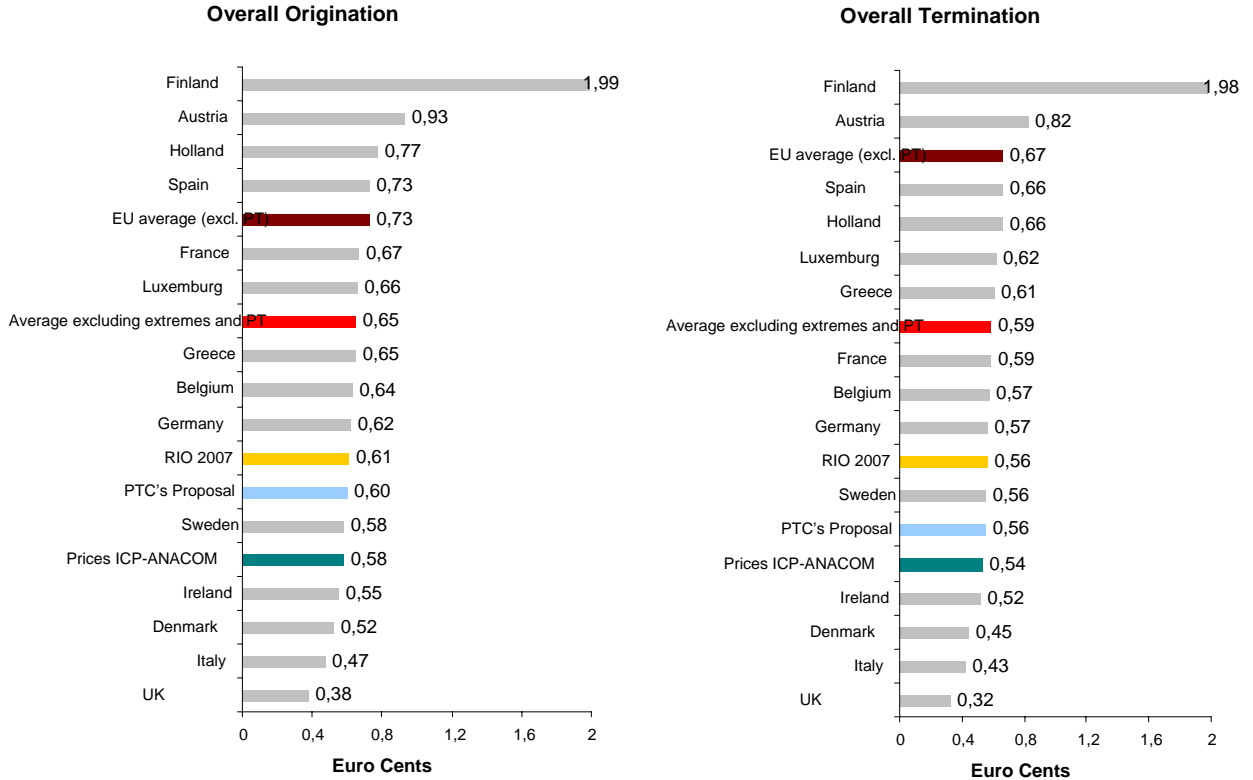
#### **II.A.6 Comparison of interconnection prices at European Union level**

62. Comparing prices of EU incumbent operators is another way to assess whether prices, and indirectly costs, are reasonable. In this context, the following graphics establish a comparison between the price per minute for a 3-minute call (in Euro cents) in the scope of RIO 2007, PTC's proposal for 2008, ICP-ANACOM's proposal for 2008 and the situation in other Member States<sup>14</sup>.

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<sup>14</sup> Calculations made by ICP-ANACOM, based on information given by Cullen International in April 2007 and on data taken from websites of regulatory authorities and incumbent operators (exchange rate on 2008.01.10 published in the website of Banco de Portugal).

**Graphic 5 – Comparison of average interconnection prices (origination and termination) for a 3-minute call**



Source: Calculations made by ICP-ANACOM

62. Figures presented above for each country were achieved by applying interconnection traffic weights estimated by PTC for 2008 to the interconnection tariff in force in each Member State (average price per minute for a three-minute call), in order to obtain an indicator that allows the integrated evaluation of several interconnection elements both for call origination and termination.
63. The comparison between maximum prices now established by ICP-ANACOM for the RIO 2008 (to prevail as from 2008.03.12) and EU-15 average, observed in April 2008, shows that Portugal's position relatively to EU average has improved, moving towards the best European practises, our country being among the first third of countries with the lowest tariffs, in the group of EU-15 Member States. Remarks developed in paragraphs 43 and 44 of determination of 2007.11.07, concerning international comparisons on this subject-matter, should be taken into account.
64. The following table summarizes detailed information on average prices for a 3-minute call in each EU-15 country.

**Table 23 – Comparison of EU-15 interconnection prices (prices in Euro cents per minute for a 3-minute call)**

Countries	ORIGINATION						TERMINATION					
	Local		Simple Tandem		Double Tandem		Local		Simple Tandem		Double Tandem	
	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak	Peak	Off-peak
Germany	0.52	0.36	0.88	0.59	1.36	0.89	0.52	0.36	0.88	0.59	1.36	0.89
Austria	0.82	0.48	1.28	0.71	2.90	1.10	0.82	0.48	1.28	0.71	2.25	0.87
Belgium	0.62	0.32	0.87	0.46	0.87	0.46	0.62	0.32	0.87	0.46	1.12	0.59
Denmark	0.53	0.31	0.66	0.40	0.86	0.55	0.46	0.27	0.66	0.40	0.86	0.55
Spain	0.67	0.40	1.00	0.60	1.39	0.84	0.67	0.40	1.00	0.60	1.39	0.84
Finland	1.99	1.99	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.98	1.98
France	0.53	0.34	1.00	0.65	1.25	0.81	0.53	0.34	1.00	0.65	1.25	0.81
Greece	0.52	0.48	0.85	0.79	1.06	1.00	0.52	0.48	0.85	0.79	1.06	1.00
Holland	0.70	0.43	1.06	0.66	1.50	0.87	0.71	0.45	0.90	0.55	1.15	0.70
Ireland	0.54	0.30	0.73	0.41	0.92	0.51	0.56	0.31	0.76	0.42	1.03	0.57
Italy	0.39	0.26	0.68	0.45	1.08	0.73	0.39	0.26	0.68	0.45	1.08	0.73
Luxemburg	0.76	0.38	0.76	0.38	1.00	0.50	0.76	0.38	0.76	0.38	1.00	0.50
Sweden	0.58	0.46	0.67	0.53	0.73	0.58	0.58	0.46	0.67	0.53	0.73	0.58
UK	0.36	0.16	0.50	0.23	1.39	0.64	0.32	0.15	0.48	0.22	1.36	0.62
RIO 2007	0.56	0.37	0.82	0.51	1.27	0.78	0.56	0.37	0.82	0.51	1.27	0.78
ICP-ANACOM Prices	0.54	0.35	0.75	0.46	1.20	0.74	0.54	0.35	0.75	0.46	1.20	0.74
EU average (excl. PT)	0.68	0.48	0.92	0.63	1.31	0.82	0.67	0.48	0.91	0.62	1.26	0.80
Deviation ICP-ANACOM prices from average	-20.0%	-26.0%	-18.4%	-26.7%	-8.4%	-10.0%	-19.3%	-25.6%	-17.3%	-25.7%	-4.9%	-8.1%
Average excluding extremes and PT	0.60	0.38	0.87	0.55	1.22	0.75	0.59	0.38	0.86	0.54	1.22	0.73
Deviation ICP-ANACOM prices from average excluding extremes	-9.0%	-6.6%	-13.4%	-16.1%	-2.1%	-1.9%	-8.5%	-6.3%	-12.3%	-14.9%	-1.9%	-1.0%

Source: Calculations made by ICP-ANACOM, based on information given by Cullen International in April 2007 (exchange rate on 2008.01.10 published in the website of Banco de Portugal)

65. As evidenced above, the EU-15 price average (excluding Portugal) shows that maximum prices defined for RIO 2008 (to prevail on 2008.03.12) are much lower than the simple Community average, for all traffic grades and time slots. In case the average excluding extremes is considered, Portugal still ranks favourably relatively to the average, although deviations are less significant.

## II.B PRICES ASSOCIATED TO CAPACITY-BASED INTERCONNECTION (FLAT RATE)

### II.B.1 Background

66. Determination of ICP-ANACOM of 2006.06.08<sup>15</sup>, on specification of changes to the RIO in order to introduce the capacity-based interconnection, defined among other aspects the method to calculate the capacity-based interconnection price.

<sup>15</sup> <http://www.anacom.pt/template31.jsp?categoryId=195702>.

67. In this context, it was determined that capacity-based interconnection prices should be calculated per basic capacity unit, interconnection prices being determined according to the real cost of their provision and the economic continuity of the model. i.e., according to the cost of a long term efficient provision, including a reasonable remuneration of capital, and the maintenance of the average remuneration of the operator providing the capacity, together with the reduction of the unit costs for the operator requesting that capacity. Thus, a relation is established between the monthly capacity price and the price per minute through the criterion used for sizing: the forecast monthly traffic.
68. As a result, the referred determination of 2006.06.08 established the following method to calculate routed minutes in the peak hour:

*“Interconnection between operators is structured around a basic network unit of 2 Mbps. The number of 2 Mbps lines to contract is determined by two parameters:*

- *Number of simultaneous conversations in the busiest hour (in terms of routed calls), i.e., in the peak hour (PH);*
- *The loss of calls at the interconnection (Degree of service, B) = 1%.*

*According to the Erlang B formula, at peak hour, for a basic capacity of 2 Mbps:*

No. Lines	Traffic Intensity (Erl)	Occupation Rate	Routed Minutes (at PH)
31	21.19 (B=1%)	68.35%	1 271 (31*60*68.35%)

*The estimated value for the total number of minutes routed per month at a basic unit is given by the formula: Minutes per month = Minutes at PH / PTr \* DU \* M, taking into account the traffic’s rate at the peak hour versus the total daily traffic of 10.4%8 and considering a number of twenty one working days per month and one month as the 11/12 holiday period:*

PTr	DU	M	Routed minutes in a month (2 Mbps)
10.4%	21	11/12	235 257 (1 271/10.4%*21*11/12)

*Thus, the number of 235,257 minutes of traffic routed per month per each basic capacity unit of 2 Mbps should be considered to reckon the initial price per 2 Mbps basic capacity unit.”*

69. Lastly, the determination set out the method to estimate the tariff for capacity-based interconnection: maximum prices per basic capacity unit are determined by multiplying the minutes associated to that unit by the average interconnection price per minute at the considered interconnection grade, Local, Tandem (Simple or Double), which is set in RIO for the time-based interconnection

$$\text{Basic Unit Price} = \text{Minutes per month} * \text{Price per minute}$$

70. It should be referred that in this determination of 2006.06.08, ICP-ANACOM referred that *“notwithstanding the mentioned values regarding the updated parameters, ICP-ANACOM will, whenever possible and appropriate, take into account the most recent values registered by PTC in the scope of the variables associated to traffic”*, and in this scope it is

necessary to reassess this issue in the light of more recent data concerning involved variable factors.

## II.B.2 PTC's proposal

71. In its communication of 2007.12.21, PTC proposed new prices for capacity-based interconnection, to prevail as from 1 January 2008, which are presented in the table below:

**Table 24 – Comparison of monthly prices per minimum capacity unit (2 Mbps)**

Grade	PTC's Proposal
Local	€ 1 187.56
Simple Tandem	€ 1 713.47
Double Tandem	€2 180.35

Source: PTC's letter dated 2007.12.21 and calculations made by ICP-ANACOM

72. This price proposal updates the traffic weight at peak hours relatively to total daily traffic from 10.4% to 10.31%, according to daily traffic data from 16 November to 7 December 2007, which results in total minutes routed per month in a basic unit of 237 291 minutes, which is slightly higher than the current 235 257 minutes.
73. It should be referred that the price proposal presented by PTC is based on the understanding that the definition of the monthly price per capacity-based interconnection unit for each grade (local, simple tandem and double tandem) is based on the time-based interconnection model traffic structure, that is, the average duration of calls per type of time slot, and peak hour traffic weight in the total traffic.
74. In reply to the consultation on the draft decision of 2008.03.19, PTC altered the position taken on December 2007, referring that the current theoretical model does not correspond to reality, as a year has elapsed since capacity units started to be engaged, and average traffic actually routed per capacity unit ranks around **[SCI] [ECI]** higher than minutes that result from the theoretical models. Therefore, the company proposes that a volume of 422.414 minutes be taken into consideration in the calculation of capacity unit prices, which is the average monthly volume routed in 2007.
75. Given this approach, PTC presents the following new price proposal for flat rate interconnection in 2008:

**Table 25 – PTC's price proposal for monthly price per minimum capacity unit (2 Mbps) for 2008**

Local	€ 2.114,04
Simple Tandem	€ 3.050,24
Double Tandem	€ 3.881,36

Source: PTC's letter dated 2008.04.07.

## II.B.3 Maximum prices for 2008

76. Given the application of new prices for time-based interconnection from 2008.03.12 onwards, it is deemed that changes to the capacity-based modality should apply on the same date. Current maximum figures for monthly prices per minimum capacity unit (2 Mbps), set out in RIO 2007 should thus remain in force up to 2008.03.11.

77. As regards the definition of maximum prices applicable as from 2008.03.12, and in the light of determination of ICP-ANACOM of 2006.06.08, this Authority acknowledges the need to update the variables used in the formula to determine the capacity-based interconnection price, in order to ensure that such prices are representative of the traffic actually routed.
78. As regards traffic data presented by PTC to update these variable factors, ICP-ANACOM deems that they represent an appropriate and recent period of time, thus complying with determination of 2006.06.08.
79. In respect of the method to calculate the monthly price per capacity-based interconnection unit for each grade, it seems more appropriate, given available data, to use the average duration of calls verified for each level, as well as the weight of each time slot (peak hours, off-peak hours) in the different interconnection grades (local, simple tandem double tandem). It thus follows a change to determination of 2006.06.08, which took into consideration, to calculate the monthly price per interconnection unit, an average call duration of 3 minutes and the same weight of both time slots for the three interconnection grades.
80. Therefore, taking into account data submitted by PTC concerning eligible traffic for capacity-based interconnection for the period between January and September 2007, the following figures were used for the time slot and average call duration ratios:

**Table 26 – Figures considered to calculate the average price per minute [SCI]**

	Weight of each time slot		Average call duration (minutes)	
	Peak	Off-peak	Peak	Off-peak
Local				
Simple Tandem				
Double Tandem				
Overall				

[ECI] Source: PTC's letter dated 2007.12.21 and calculations made by ICP-ANACOM.

81. The following average prices per minute for each grade, taking into account time-based interconnection prices proposed by ICP-ANACOM to prevail as from 2008.03.12, thus result:

**Table 27 – Average price per minute [SCI]**

	Average price per minute
Local	
Simple Tandem	
Double Tandem	

[ECI] Source: Calculations made by ICP-ANACOM

82. Considering a total of minutes routed per month in a basic unit of 237 291 minutes, the following maximum figures for monthly prices per minimum capacity unit (2 Mbps) to prevail as from 2008.03.12 are obtained:

**Table 28 - Monthly price per minimum capacity unit (2 Mbps) for 2008**

Local	€ 1 123.69
Simple Tandem	€ 1 690.35
Double Tandem	€ 2 130.26

**[ECI]** Source: PTC's letter dated 2007.12.21 and calculations made by ICP-ANACOM.

83. Note that in case the previous method was maintained (considering an average call duration of 3 minutes and an overall peak/off-peak time slot ratio) the following maximum prices would be obtained:

**Table 29 - Monthly price per minimum capacity unit (2 Mbps) using the previous method**

Local	€ 1 118.23
Simple Tandem	€ 1 526.51
Double Tandem	€ 2 434.45

Source: PTC's letter dated 2007.12.21 and calculations made by ICP-ANACOM.

84. It can be observed that the change in the method used does not have any significant effects in the local grade monthly price, however for the other two grades (simple tandem and double tandem), the effects are opposite according to the method applied, with deviations by +11% and -12.5% for a 2 Mbps circuit monthly price of a simple tandem grade and double tandem grade, respectively.
85. It is deemed that observed deviations are not apt to penalize the use of the interconnection flat rate, and monthly payments now laid down based on the average call duration for each interconnection grade, as proposed by PTC in December 2007, evidence more accurately the traffic pattern associated to each interconnection grade. Maximum prices now defined by ICP-ANACOM to prevail as from 2008.03.12 show significant reductions relatively to prices included in the RIO 2007 (see table below, which also shows variations, relatively to RIO 2007, resulting from PTC's proposal, in December 2007, for 2008):

**Table 30 – Comparison of prices per minimum capacity unit (2 Mbps) proposed by ICP-ANACOM for RIO 2008 (to prevail as from 2008.03.12) with RIO 2007 prices**

Grade	RIO 2007 (as from 2007.03.26)	PTC's proposal for 2008	Deviation of PTC's proposal for 2008 from RIO 2007	ICP- ANACOM's maximum prices as from 2008.03.12	Deviation of ICP- ANACOM's maximum prices from RIO 2007
Local	€ 1 162.09	€ 1 187.56	+2.19%	€ 1 123.69	-3.30%
Simple Tandem	€ 1 858.19	€ 1 713.47	-7.79%	€ 1 690.35	- 9.03%
Double Tandem	€ 2 593.98	€ 2 180.35	-15.95%	€ 2 130.26	- 17.88%

Source: Calculations made by ICP-ANACOM

86. It should be noted that data conveyed by PTC in the reply to the draft decision of 2008.03.19 must be submitted with a higher degree of detail, attaching other information deemed to be relevant. It is not deemed appropriate, therefore, to abandon the established theoretical method, based on a loss of interconnection calls by 1%, and providing for significant penalties in case of traffic transshipment.



87. ICP-ANACOM considers that significant prices increases associated to the capacity-based interconnection, as PTC has proposed (78%), should not be introduced without a more thorough analysis of the issue. Therefore, given the above and in order to carry out a regular monitoring action by this Authority of levels of use of interconnection flat rate, ICP-ANACOM will in due time request PTC and beneficiaries of the offer to supply detailed information on this matter, namely on traffic routed on the basis of this interconnection modality.
88. Within this context, and taking into account comments received following the draft decision, it is hereby clarified that the penalty that corresponds to twice the price of time-based interconnection to be applied to traffic transshipment concerns only the overflow traffic.

## **II.C PRICE OF BILLING AND CHARGING SERVICES AND BAD DEBT LIABILITY**

89. RIO 2007 establishes the following prices for billing and charging services and bad debt liability:
- (1) 3.08 Euro cents, per call, for call services in which the cost born by the caller does not exceed PTC Local (as defined in the tariffs for PTC residential customers);
  - (ii) 3.44 Euro cents, per call, for remaining special paid services.
90. Taking into account estimated costs for 2008 (based on costing results, supported on the optimisation of the cost of capital from the figures involved in the company's privatization stages) PTC proposes an increase of billing and charging services and bad debt liability by approximately 8.8% e 6.1%, respectively for the types of services referred in (i) and (ii) of the preceding item. Considering costs estimated on the basis of the optimisation of the cost of capital based on its accounting value, variations proposed by PTC would entail increases by approximately 3.9% e 1.7% for services referred in (i) and (ii), respectively.
91. However, PTC's proposal is based on the full consideration of common costs (resulting in total unit costs of [SCI] [ECI] and [SCI] [ECI] Euros for the type of services referred in (i) and (ii) of the preceding item, respectively), which is contrary to ICP-ANACOM's understanding in this matter, that the part concerning common costs should not exceed 10% of the sum of direct and joint costs.
92. The following table presents billing and charging costs in 2006 (AAS activity F), according to information provided by PTC on 2008/04/07, as well as estimates presented by PTC for 2008, which represent a reduction of direct and joint costs by approximately 8.8% relatively to 2006.

**Table 31 - Costs estimated by PTC for 2008 – Direct and joint costs (figures in Euro cents, per call) [SCI]**

Activity	AAS results 2006	Estimates PTC 2008
Billing and charging		

[ECI] Source: PTC's letter of 2007.12.21 and calculations made by ICP-ANACOM

93. The results of the 2006 AAS for the billing and charging service represent, relatively to 2005, an increase of direct and joint unit costs by approximately 12%.
94. Based on the costing information provided by PTC exclusively for the billing and charging of a final customer in the scope of the fixed telephone service, ICP-ANACOM estimated costs for this activity in 2008 through the application of the method described above (annual reduction by 5% of direct and joint costs and maximum limit for common costs corresponding to 10% of the sum of direct and joint costs), which results for 2008 in a unit cost for the billing and charging service of [SCI] [ECI] Euro cents ([SCI] [ECI] for direct and joint costs and [SCI] [ECI] for common costs). It is concluded that costs thus estimated do not differ significantly from PTC's estimates.
95. Without prejudice to considering that the new costing information presented by PTC must take into consideration the establishment of maximum prices to prevail in 2008, ICP-ANACOM deems it necessary to carry out a more thorough analysis of this subject-matter, and thus requests PTC to submit thereto detailed information on services and cost items used to achieve figures presented to ICP-ANACOM.
96. Given that, according to determination of 14/04/04<sup>16</sup>, on the approval of the statement of compliance of the cost accounting system for the fixed telephone service and for the leased lines service of PT Comunicações, S.A. for 2001, PTC is bound to submit to ICP-ANACOM a critical review of AAS results, highlighting the main developments that took place, which must be fully substantiated, that operator must also justify the referred variation by approximately 12% between results indicated for 2006 relatively to 2005.
97. It is also necessary to calculate figures for bad debt liability, in order to achieve an overall level of costs, based on which it is possible to determine the prices that apply to the billing and charging services and bad debt liability.
98. For this element, PTC estimates that for calls with shared costs, where the price does not exceed Local PT (as defined in PTC's tariff for the residential segment), the estimated amount of the provision unit cost per call is [SCI] [ECI] Euro cents ([SCI] [ECI] for direct and joint costs and [SCI] [ECI] for common costs). All services considered, the estimated amount of the provision unit cost per call is [SCI] [ECI] Euro cents ([SCI] [ECI] for direct and joint costs and [SCI] [ECI] for common costs).
99. ICP-ANACOM considers that estimates presented by PTC for bad debt liability, which represent a reduction by approximately 27% and 21% relatively to figures applied in RIO

<sup>16</sup> <http://www.anacom.pt/template31.jsp?categoryId=209662>.

2007, allow an appropriate consideration of the evolution verified at retail tariff level and implications at the level of bad debt liability. Notwithstanding, the common cost element for both types of services does not comply with ICP-ANACOM's understanding in this matter, that the part concerning common costs should not exceed 10% of the sum of direct and joint costs, as in fact it represents 20%.

100. Consequently, ICP-ANACOM accepts PTC's estimates for direct and joint costs, stressing that maximum figures for common costs shall be [SCI] [ECI] Euro cents and [SCI] [ECI], for call services where the cost borne by the caller does not exceed Local PTC; and for the remaining special paid services, respectively.
101. In the light of the above, the bad debt liability value for calls with shared costs, where the price does not exceed Local PT (as defined in PTC's tariff for the residential segment), is [SCI] [ECI] Euro cents; and all services considered, the estimated amount of the provision unit cost per call is [SCI] [ECI] Euro cents.
102. The following table summarizes cost figures for 2008 for the billing and charging services and bad debt liability elements:

**Table 32 - Costs estimated by ICP-ANACOM (figures in Euro cents, per call) [SCI]**

Service	Activity	Estimated costs 2008
Services where the cost borne by the caller does not exceed Local PTC	Billing and charging services	
	Bad debt liability	
	<b>Total</b>	
Other services	Billing and charging services	
	Bad debt liability	
	<b>Total</b>	

[ECI] Source: Calculations made by ICP-ANACOM

103. In the light of the above, ICP-ANACOM hereby establishes the following maximum prices for billing and charging services and bad debt liability, to prevail as from 2008.03.12:
- (i) 2.90 Euro cents, per call, for call services where the cost borne by the caller does not exceed Local PTC (as defined in PTC's tariff for residential customers)
  - (ii) 3.17 Euro cents, per call, for remaining special paid services;

These prices represent reductions by approximately 5.8% and 7.8% for the types of services referred in (i) and (ii) of the preceding item, respectively.

104. In this connection it is pointed out that, as ICP-ANACOM has conveyed on previous occasions, interested parties are free to negotiate the breaking down of the billing and charging service (which includes the bad debt liability element) in separate billing and charging services and bad debt liability, however it is not deemed proportional to impose such an obligation on PTC.

## II.D PRICE OF CALLS MADE FROM PUBLIC PAYPHONES

105. Nowadays, calls made from public payphones are 50% more expensive than calls made through a subscriber phone.

106. On 2007.12.21, PTC presented estimates of public payphones call origination unit costs for 2008 which amounted to [SCI] [ECI] Euro cents. Given the deviation of this figure from the average gain estimated by this company for 2008, of [SCI] [ECI], PTC proposes the application of a coefficient of 18, instead of the current 1.5, for the augmentation of the call origination value, for calls made from public payphones. It should be noted that gains estimated by PTC were based on the interconnection tariff proposed by that company for 2008 and on the forecast traffic structure for 2008 for calls made from public payphones for SNG of other OSP.
107. ICP-ANACOM acknowledges that calls made from public payphones have additional costs, relatively to calls made from subscriber phones, on account of access and equipment made available by PTC, without financial compensation apart from traffic revenue (retail and interconnection).
108. As has already been showed in the scope of the determination on RIO conditions for 2007 and interconnection conditions within PTC's exchanges, margins associated with the public payphone service, although negative, improved from 2002 to 2005, with a slight deterioration in 2006, as the following graphic evidences.

**Graphic 6 – Evolution of gains, costs and margins of communications made from public payphones [SCI]**

**[ECI]**

\* Adjusted to reflect costs that would result from cost of capital achieved according to the method used in 2004 and without the reclassification of pre-selection fixed assets introduced by PTC in the regulatory costing results for 2004.

\*\* The presented gain amount was estimated, in view of the fact that there was information solely for the three first quarters of 2007. The gain amount for the fourth quarter of 2007 was deemed to correspond to the average of gains registered for the three first quarters of 2007.

Source: ICP-ANACOM based on data from PTC's AAS, adopting a reasonable level of common costs (10% on the sum of direct and joint unit costs).

109. Given that margins associated with this service remain intensively negative (margin in 2006 of [SCI] [ECI]), and that, according to PTC's estimates for 2007 and 2008, they tend to deteriorate to [SCI] [ECI], which obviously is a matter concern for ICP-ANACOM and results (according to data supplied by PTC) specifically of a serious disproportion between the weight of origination communications and respective costs and achieved gains, it is deemed that the maintenance of an augmentation coefficient in the origination price applicable to calls made from public payphones is justified and that its value should be reassessed. This amount, it is recalled, is intended to compensate PTC for costs incurred as a result of the provision of this service. PTC must previously identify, for billing purposes, the CLI (call line identification) associated with calls originated from public payphones.

110. As regards the value of the augmentation coefficient, the following information on this subject-matter was obtained relatively to other EU Member States:

**Table 33 – EU situation relatively to public payphones interconnection conditions**

<b>Germany</b>	Supplement of €0,1659 on the price per minute applicable to free-phone and non geographic national numbers
<b>Austria</b>	There is a "payphone access charge" of €0,0380 that applies to free-phone numbers
<b>Belgium</b>	Supplement of €0,11651 on the price per minute applicable to free-phone numbers
<b>Spain</b>	Supplement of €0,0479 on the price per minute applicable to free-phone numbers (except emergency services)
<b>France</b>	€0,0346 applicable to free-phone numbers and €0,0680 applicable to information services and added value services
<b>Holland</b>	yes (amount not available) applicable to free-phone numbers
<b>Ireland</b>	€0,16883 applicable to free-phone numbers
<b>Italy</b>	Supplement of €0,069 on the price per minute applicable to all types of calls
<b>Luxemburg</b>	Supplement of €0,1701 on the price per minute applicable to free-phone numbers
<b>Sweden</b>	yes (amount not available) applicable to free-phone numbers
<b>UK</b>	Supplement of €0,1247 on the price per minute applicable to free-phone numbers
<b>RIO in force</b>	Supplement by 50% on the origination price per minute (minimum € 0,0035 that corresponds to a 1 minute duration off-peak call) applicable to all types of calls
<b>PTC Proposal</b>	Application to the origination price per minute of a coefficient of 18, for all types of calls

Source: Cullen International (information obtained in April 2008) and ICP-ANACOM.

111. Taking into account information collected at EU level, it can be seen that it is common practice to apply supplements on the origination price of calls made from public payphones, the amount of this supplement varying widely from country to country, and the scope of application not being the same (in some cases the supplement applies to all types of calls and in others it applies only to free-phone numbers).
112. In this context, the augmentation currently established in the RIO (50% the origination price) that applies to all calls made from public payphones can not be directly compared to the situation in other countries.
113. Under these conditions, and taking into consideration that a sharp augmentation increase has a negative impact on the incentive to the development, on the part of other operators/providers, of services supported on non-geographic numbering (namely virtual call cards), the augmentation proposed by PTC thus being deemed unsustainable on the short-medium term, it is considered that, without prejudice to the future monitoring of this subject-matter, the augmentation under consideration should be regarded in connection with the price-cap mechanism, established at the level of narrowband retail markets, namely the ratio of 1:3 established for calls intra-PTC network between prices of calls made from PTC's public payphones and calls made from subscriber phones<sup>17</sup>. It is thus deemed necessary to analyze further information on gains and costs.
114. Therefore, according to information made available by PTC for 2006 (which is the most recent available annual data), the ratio between gains from the operation of public payphones and those from subscriber phones is around 3 for the fixed network traffic,

<sup>17</sup> According to provisions in determination of 2004.12.14 on the imposition of obligations in narrowband retail markets.

namely local and national calls. This ratio, for the call origination service, is slightly higher than 1, which indicates that the current augmentation coefficient (1.5) is inadequate.

**Table 34 – Relation between figures associated to public payphones and subscriber phones (Euros) [SCI]**

		Public Payphones 2006 gross gains (information submitted by PTC in the scope of RIO 2008)	Basic service gross gains (2006 AAS)	Public Payphones 2006 cost (information submitted by PTC in the scope of RIO 2008)	Basic service costs (2006 AAS)	Ratio PP gross gains / FTS gross gains
Fixed network traffic	Local Com.					
	National Com.					
Origination						

[ECI]: Source: Data provided by PTC and calculations made by ICP-ANACOM.

115. In the light of the above, at present, and, as referred earlier, aiming for a balance between the incentive to the development, on the part of other operators/providers, of services supported on non-geographic numbering and the conditions established at the level of narrowband retail markets, and also for the need not to increase excessively any universal service net costs, it is deemed appropriate to review the current augmentation coefficient.
116. Therefore, using the same principles underlying the coefficient 1.5 set out in determination of 2001.01.19, in the scope of RIO 2001, the coefficient 3 is deemed to be an appropriate augmentation coefficient, in line with the ratio between gains from the operation of public payphones and those from subscriber phones in the scope of fixed network communications (local ad national), which corresponds also to a figure close to the cost ratio under the same conditions.
117. However, it is acknowledged that the impact of this measure may be significant, especially within the virtual call card market, which is a market with product characteristics, thus requiring some time for adaptation purposes.
118. In these conditions, ICP-ANACOM deemed appropriate to establish a gradual transition regime for the review of the augmentation factor value, according to the following schedule:

Date of application	Augmentation factor
1 de January 2008	1.50
1 July 2008	2.25
1 January 2009	3.00

119. It is also deemed appropriate, in view of comments received in the scope of the draft decision consultation, to clarify that PTC must identify previously, in terms of signalling, for billing purposes, the CLI category associated to calls made from public payphones (calling party's category = payphone) without prejudice to the power of ICP-ANACOM to reassess the matter (namely by providing an up-to-date list to OSPs with CLIs associated to public payphones) in the light of specific issues submitted thereto.

## II.E PRICE OF PORTABILITY ACTIVATION

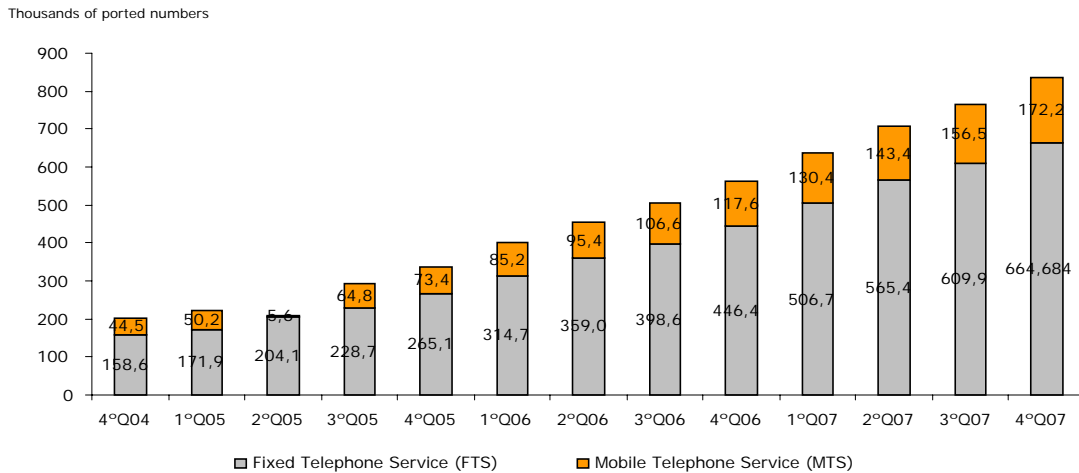
120. As specified in ICP-ANACOM's determination of 2007.11.07 on alterations to RIO 2007, the following maximum porting prices have been established:

**Table 35 – Maximum porting activation prices per number in Portugal**

Porting per individual number	€5.39
Porting per number in each block of numbers:	
1 a 9	€4.25
10 a 99	€1.67
> = 100	€0.79

121. As regards portability, it should be stressed that throughout the years there has been a significant increase in the number of ported numbers. Stress should be given to the increase by 48% of ported numbers between the last quarter of 2006 and the last quarter of 2007. The following graphic illustrates the evolution verified in this scope:

**Graphic 7 – Evolution of ported numbers**



Source: ICP-ANACOM

122. On 2007.12.07, PTC presented unit cost estimates for the porting of a number<sup>18</sup> for 2008. According to PTC, these estimates are based on the forecast of an increase of the porting amount by **[SCI] [ECI]**, which corresponds to an increase above **[SCI] [ECI]** relatively to the demand registered in 2006. In this context, PTC presents significant reductions of unit costs from 2006 to 2008, as shown in the table below:

<sup>18</sup> According to PTC, it would not be possible to break down information on portability costs, between porting per individual number and per number in each block of subsequent numbers, as PTC's AAS had been designed to give as a result the cost associated to the porting of a number, regardless of whether it is an individual number or a part of a block of subsequent numbers.

**Table 36 – Evolution of portability unit costs presented by PTC 2006 vs 2008 [SCI]**

	2006	2008	Deviation
Direct costs			- 42%
Joint costs			- 50%
Direct + Joint costs			- 43%
Common costs			- 42%
Total cost			- 43%

[ECI] Source: AAS for 2006 and PTC's letter of 2007.12.07.

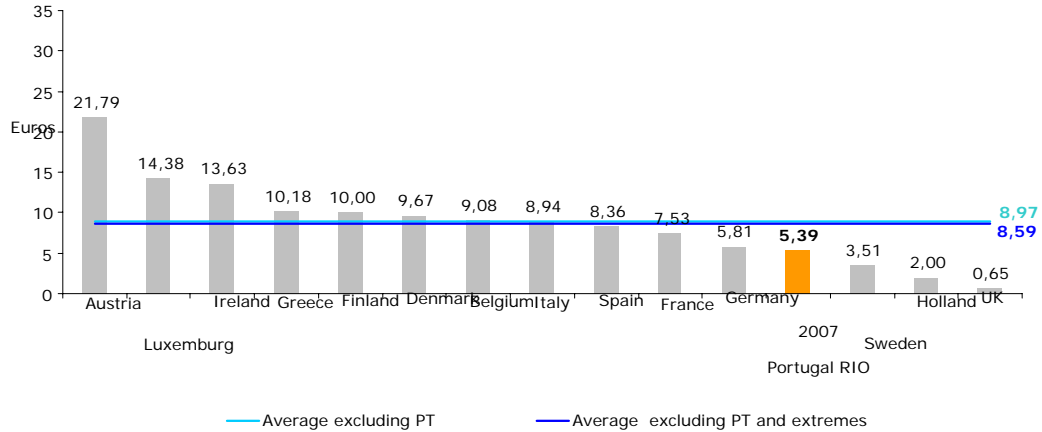
123. Note that, despite the reduction of portability costs estimated by PTC, this company stresses the need to recover from the deficit accumulated up to 2005, amounting to [SCI] [ECI], requesting from ICP-ANACOM clarification on prices that PTC may apply.
124. On this issue, this Authority highlights that the method followed in the annual RIO reviews does not include compensation for positive or negative margins occurred in preceding years.
125. In the scope of costs estimated for 2008, ICP-ANACOM also prepared estimates of direct and joint costs associated to this service, admitting an annual reduction by 5% of unit costs, relatively to the most recent available AAS annual results for 2006, considering also a mark-up by 10%, deemed to be sufficient to address a reasonable level of common costs, having reached a value greater than the one estimated by PTC (ICP-ANACOM estimated a unit cost for 2008, of [SCI] [ECI]) which corresponds to a more conservative perspective of the evolution of the level of porting, when compared to PTC's forecasts.
126. PTC itself referred that the forecast porting volume for 2008 could have been overestimated, given the total porting level occurred in 2007, which could result in an underestimation of the portability unit cost for 2008, considering that very significant year-to-year fluctuations in RIO tariffs were inappropriate.
127. In the light of the above, given the uncertainty associated to the development of the portability service in 2008, particularly as regards the porting volume in the future, it is deemed that both PTC and ICP-ANACOM estimates should be considered, assuming that they can represent the higher and lower limits of a range comprising the effective costs for 2008. Anyway, relatively to PTC estimates, it is restated that, for the level of common costs, the maximum acceptable level constitutes 10% of the sum of remaining costs<sup>19</sup>, as justified earlier, entailing a total estimated costs for 2008 of [SCI] [ECI] Euro cents.
128. Consequently, it is considered that the mid-point of the range in consideration ([SCI] [ECI]; [SCI] [ECI] Euro cents), amounting to [SCI] [ECI] is an appropriate approximation of costs for 2008, representing the best possible estimate, due to the obvious uncertainty associated to the development of the service, resulting from the recent change in the market structure.

<sup>19</sup> Note that common costs presented by PTC represent [SCI] [ECI] of the sum of direct and joint costs.



129. The situation at EU level in this matter should also be assessed. According to information collected in April 2008, amounts charged for the porting of an individual numbers are presented in the graphic below:

**Graphic 8 – Current European practises as regards portability prices per individual number**

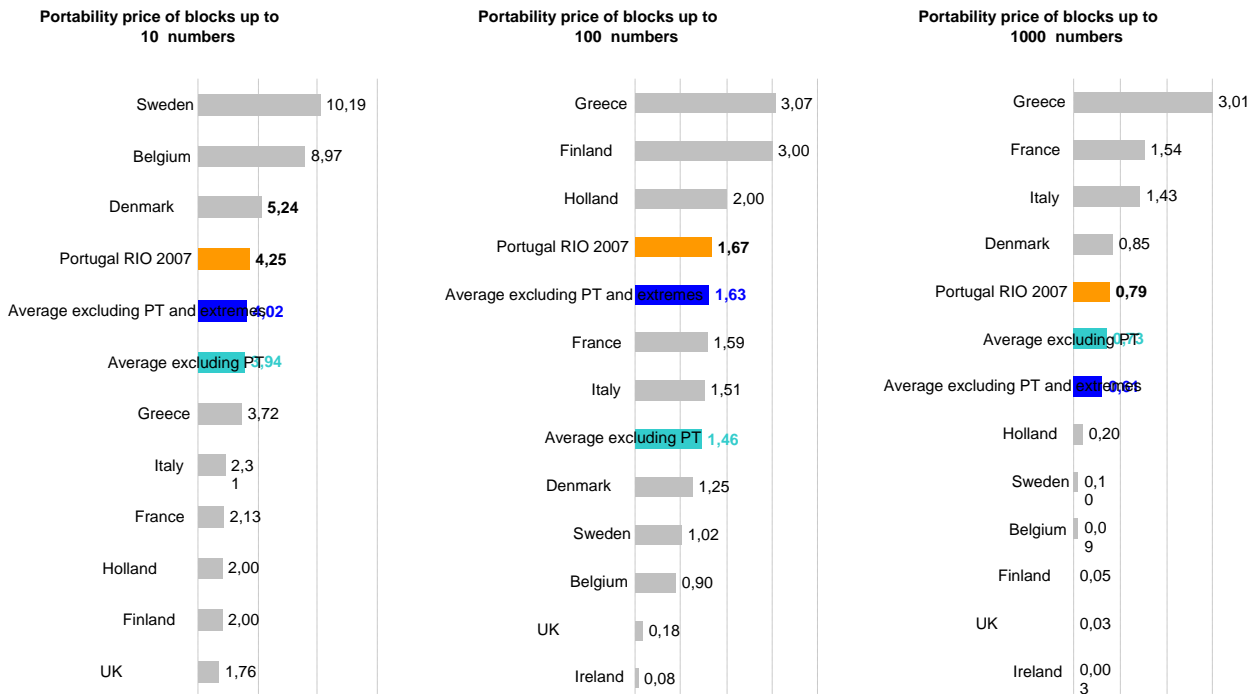


Source: Cullen International and websites of NRAs and incumbent operators

130. It can thus be observed that the price defined in the RIO 2007 for portability per individual number compares favourably with EU average (with and without extremes), ranking among the best practises.

131. As regards current European practises on the portability price per block numbers up to 10, 100 and 1000 thousand numbers, the situation is as follows:

**Graphic 9 - Current European practises as regards portability prices per block numbers**



Source: Cullen International and websites of NRAs and incumbent operators

132. It can thus be concluded that portability prices of blocks of numbers rank slightly above EU average (with and without extremes), in line with the progress intended by ICP-ANACOM as regards prices in the RIO 2007, which were in fact established in a framework of approximation in the first instance to the then average EU values, the updating of which should now be considered. In the absence of specific costing data for the porting of ranges of numbers, this approximation is deemed to be correct to establish porting prices.
133. As referred in the determination on amendments to the RIO 2007, it is acknowledged that the estimated cost cannot be compared to the porting of an individual number, but to the average charged price (which includes individual numbers and porting of ranges), which justifies an adjustment of the average price to the average cost.
134. Acknowledging that the porting of individual numbers and the porting of blocks of numbers from 1 to 9 numbers represent similar scopes, it is admitted that it is more simple and clear for market purposes to adopt a single price for both. Thus, and in line with RIO 2007, figures for the porting of blocks of numbers (from 10 to 99 numbers and for more than 100 numbers) are established in a framework of approximation to EU average (excluding Portugal), and the price for the porting of numbers from 1 to 9 numbers (including the porting of an individual number) is established taking into account the referred cost estimate for 2008 [SCI] [ECI], the prices associated to the porting of blocks of numbers (from 10 to 99 numbers and for more than 100 numbers), and the weight of PTC's ported numbers as donor operator, in 2007, for each level. It results that the price for the porting of numbers from 1 to 9 numbers (including the porting of an individual number) should be 4.01€ which is deemed to allow a reasonable margin to address a reasonable level of common costs and to compare favourably with current European practises, moving towards the best practises, as one might expect given the nature of costs included, with a significant weight of labour force.
135. The following table summarizes maximum porting activation prices per number to prevail as from 2008.03.12.

**Table 37 – Maximum porting activation prices per number**

	Current price	Maximum price RIO 2008 (to prevail as from 2008.03.12)	Percentage of reduction
Individual porting	€5.39	€4.01	-25.6%
Blocks of numbers from 1 to 9	€ 4.25	€ 4.01	-5.6%
Blocks of numbers from 10 to 99	€ 1.67	€ 1.47	-11.8%
Blocks of numbers ≥100	€ 0.79	€ 0.73	-7.6%

136. PTC requested of this Authority a clarification on the mismatch between prices of number portability applied by the Reference Entity, by PTC and other OSP, referring that, further to the review of portability prices by PTC, OSP considered that the Reference Entity should analyse, in the scope of the *Comissão de Acompanhamento da Portabilidade* (Commission for Portability Monitoring) the possibility of adopting the new prices established by PTC, so that prices charged by all parties are once again aligned with each other.

137. It should be highlighted that according to paragraph 1 of article 19 of Regulation no 58/2005 (Portability Regulation), the cost of establishing systems associated with the introductions or modifications to be made in the networks and systems of each company and with other procedures associated with portability must be borne by each undertaking in its network and systems, and according to paragraph 2, the administrative costs incurred per ported number may be recovered by the donor provider from the recipient provider.
138. Attention must be drawn to paragraph 2 of article 54 of Law no. 5/2004, which lays down that “interconnection prices in respect of the provision of number portability shall follow the principle of cost orientation and direct charges to subscribers, if any, and shall not act as a disincentive for the use of such facilities”.
139. In the light of the above, taking into account the applicable regulatory framework, it is clarified that portability prices practised by OSP should reflect costs incurred, ICP-ANACOM maintaining the power to take action in the future in this matter, where appropriate.

## II.F PRICE OF PRE-SELECTION ACTIVATION

140. PTC proposes an increase of the activation price of operator pre-selection from €2.12 to €3.77, which corresponds to an increase by 77.8%.
141. As regards unit costs of pre-selection activation, the following estimates were presented:

**Table 38 - Unit costs of pre-selection activation for 2008 estimated by PTC (Euros) [SCI]**

Direct costs	
Joint costs	
Direct + Joint costs	
Common costs	
Total cost	

[ECI] Source: PTC's letter of 2007.12.07

142. PTC's proposal is based on the forecast continuation of steep decreases of the pre-selection volume and the lower level of reduction of staff costs, which would lead to an increase of unit costs for 2008 relatively to 2006 and to PTC's forecasts for 2007 (according to information submitted by fax by this company on 2007.01.11), as shown in the table below.

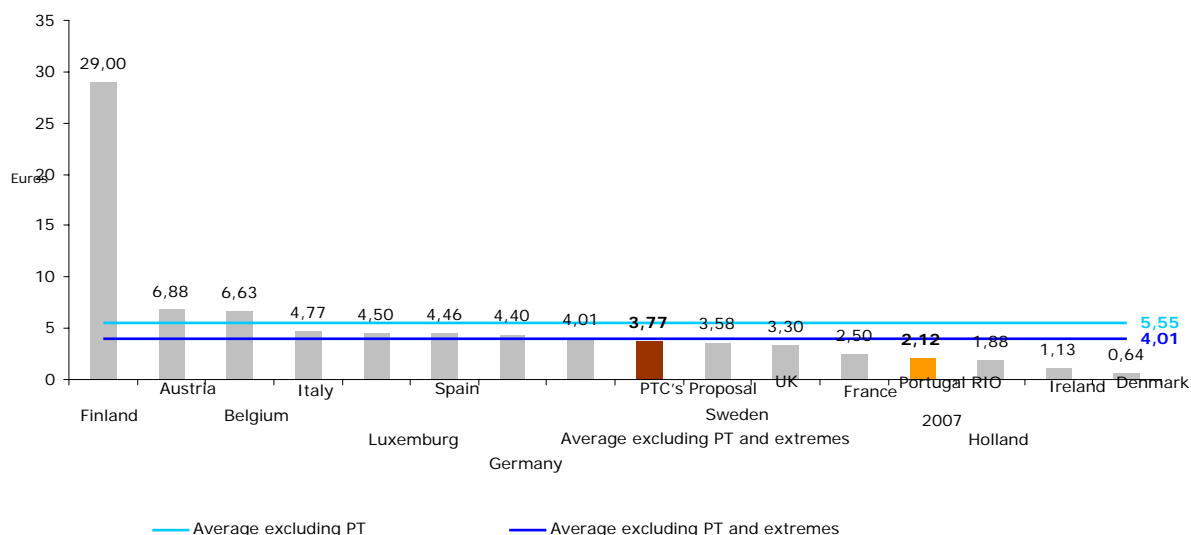
**Table 39 – Evolution of pre-selection activation unit costs, according to estimates made by PTC for 2008 [SCI]**

	2006	PTC's estimates 2007	PTC's estimates 2008	Deviation PTC's estimates 2008 from AAS 2006	Deviation PTC's estimates 2008 from PTC's estimates 2007
Direct costs				18%	46%
Joint costs				93%	81%
Direct + Joint costs				22%	48%
Common costs				62%	46%
Total cost				28%	48%

[ECI] Source: AAS for 2006 and PTC's letter of 2007.12.07.

143. According to estimates made by ICP-ANACOM, based on the annual reduction by 5% of direct and joint unit costs, corresponding to expected efficiency gains, direct and joint costs for 2008 would be [SCI] [ECI], which represents a deviation by -39% relatively to PTC's estimates.
144. Relatively to common costs, as referred earlier, they should not exceed 10% of the sum of direct and joint costs, thus ICP-ANACOM estimates that these costs amount to [SCI] [ECI], which results in a total unit cost of [SCI] [ECI]. As far as PTC's estimates are concerned, common costs represent [SCI] [ECI] of the sum of direct and joint costs, which goes against this Authority's understanding. Given estimates of direct and joint costs presented by PTC, the maximum value which ICP-ANACOM could consider would be [SCI] [ECI], which would represent for 2008 a total cost of [SCI] [ECI].
145. The resort to European practises should be considered together with cost orientation of prices and efficiency patterns. Therefore, according to information collected in April 2008, amounts charged for pre-selection activation for an analogue line are presented in the graphic below:

Graphic 10 – Current European practises as regards pre-selection activation price



Source: Cullen International and websites of NRAs and incumbent operators

146. Given the degree of uncertainty associated to the evolution of the volume of the pre-selection service (considering that the reduction foreseen by PTC may underestimate pre-selection volumes for 2008) and the ranking of Portugal at European level, it is deemed that both PTC and ICP-ANACOM estimates should be considered for the purpose of establishing the maximum pre-selection activation price, assuming that they can represent the higher and lower limits of a range comprising the effective costs for 2008.
147. In the conditions described above and admitting, relatively to PTC's estimates a maximum level by 10% of the sum of direct and joint costs for the value of common costs, ICP-ANACOM deems appropriate, at present, to establish a new maximum pre-selection

activation price (to prevail as from 2008.03.12) of €2.66 (according to data presented in the table below), which is relatively close to estimates referred by PTC for 2007 in the scope of the RIO 2007, and which maintains Portugal in the same relative ranking (4<sup>th</sup>).

**Table 40 – Pre-selection activation unit costs for 2008 [SCI]**

	PTC's Estimates	ICP-ANACOM's Estimates	Amount considered for RIO 2008 (mid-point)
Direct costs			
Joint costs			
Direct + Joint costs			
Common costs			
Total cost			

[ECI] Source: AAS for 2006, PTC's letter of 2007.12.07 and calculations made by ICP-ANACOM.

### III DETERMINATION

Taking into account the grounds mentioned above and those presented in the prior hearing report, the Board of Directors of ICP-ANACOM, in the pursue of powers conferred by article 6, paragraph 1 b) and f) of the Statutes approved by Decree-Law no. 309/2001, of 7 December, and taking into consideration regulation objectives provided for in article 5 of Law no. 5/2004, of 10 February, namely the promotion of competition in the provision of electronic communications services and the protection of consumer interests, and pursuant to article 68, paragraph 3 a) of Law no. 5/2004, hereby determines as follows:

#### 1. PT Comunicações must amend the Reference Interconnection Offer for 2008 (RIO 2008) within 10 working days, introducing thereto the following changes:

- (i) Maximum prices for call origination and termination prices shall be as follows:

**ICP-ANACOM INTERCONNECTION PRICES FOR 2008 FOR ORIGINATION AND TERMINATION SERVICES**

LEVEL	CALL ACTIVATION	PRICE PER MINUTE	
		PEAK HOURS	OFF-PEAK HOURS
Local	0.49	0.38	0.19
Simple Tandem	0.52	0.58	0.29
Double Tandem	0.62	0.99	0.53

Figures in Euro cents (no VAT included).

Charge by the second from the first second.

Peak hour tariff applies from 9a.m. to 7 p.m.; Off-peak hours tariff applies otherwise.

- (ii) Maximum monthly prices per minimum capacity unit (2 Mbps) shall be as follows:

**ICP-ANACOM INTERCONNECTION PRICES FOR 2008 FOR MONTHLY PRICE PER MINIMUM CAPACITY UNIT (2 MBPS)**

Local	€ 1 123.69
Simple Tandem	€ 1 690.35
Double Tandem	€ 2 130.26

- (iii) The penalty laid down in the interconnection flat rate that corresponds to twice the price of time-based interconnection to be applied to traffic transshipment concerns only the overflow traffic.
- (iv) Maximum prices for billing and charging services and bad debt liability shall be as follows:
- 2.90 Euro cents, per call, for call services where the cost borne by the caller does not exceed Local PTC (as defined in PTC's tariff for residential customers);
  - 3.17 Euro cents, per call, for remaining special paid services.
- (v) Maximum porting prices per number shall be as follows:

**MAXIMUM PORTING PRICES PER NUMBER**

	MAXIMUM PORTING PRICES PER NUMBER
Individual porting	€4.01
Blocks of numbers from 1 to 9	€ 4.01
Blocks of numbers from 10 to 99	€ 1.47
Blocks of numbers $\geq 100$	€ 0.73

- (vi) The maximum pre-selection activation price shall be €2.66.
- (vii) Maximum prices established above shall apply from 12 March 2008 onwards, and until that date maximum prices prevailing since 2007.03.06 continue to apply.
- (viii) The interconnection price that applies to calls made from PTC's public payphones shall not exceed the price defined for the call origination service multiplied by an augmentation factor (k), which shall develop according to the following schedule:

1 de January 2008	k = 1.50
1 July 2008	k = 2.25
1 January 2009	k = 3.00

- (ix) PTC must identify previously, in terms of signalling, for billing purposes, the CLI category associated to calls made from public payphones (calling party's category = payphone).
2. PT Comunicações must submit to ICP-ANACOM, within 20 working days, detailed information on services and cost items used to achieve figures presented in the reply to the consultation carried out on the draft decision as regards prices of the billing and collecting services and bad debt liability.