CONVENZIONE – CONTRATTO DI PROGRAMMA ENAC ADR

USERS' CONSULTATION

2017 – 2021 AIRPORT CHARGES UPDATE

Answers to questions received after the public hearing held on Oct. 27

INTRODUCTION

Please find in the following pages the answers to the questions that have been addressed to ADR after the second public hearing of Oct 27th and that have not had former coverage either in previous Q&A documents or in the minutes of the two hearings (5th and 27th Oct.). All said material remains available at the 2017-21 tariff consultation page of ADR's website.

In coming days, ADR shall publish its final tariff proposal alongside further details on allowable costs to the regulated services. Users will be contacted with details on further publication dates.

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Q: Anwers to EasyJet replies on WACC parameters.

A: This memo provides answers to the questions received from EasyJet concerning the base WACC; the memo shows that the methodology used to estimate the WACC parameters is in line with international best practices and with the provisions in the Contratto di Programma (ERA).

Risk Free Rate

EasyJet argues that the Risk Free Rate (RFR) used by ADR to estimate the WACC in 2017-2021 charges review, equal to 2,82% in nominal terms, is too high, since the methodology used to estimate the parameter is "[…] not provided for under Article 39(2) of the ERA and goes against economic reality as low inflation rates, low rates of economic growth […]".EasyJet points to the decisions of the Portuguese telecom regulator (ANACOM) taken in 2013, and the determination of charges at Dublin airport for 2015-2019 taken by Commission for Aviation Regulation, as alternative best practices that ADR should have followed to estimate the RFR.

The methodology used to determine the RFR of the new regulatory period follows the contractual provisions defined in the ERA, particularly articles 38(1), 38(3), and 39(2):

- according to the ERA the rate of return on invested capital is defined in nominal terms and it is transformed in real terms by using: (i) the inflation rate foreseen by the Italian Government in the last Documento di Economia e Finanza (DEF) published during the Anno Base, and (ii) the Fisher formula;

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- the rate of return defined in the ERA provides the appropriate remuneration rate allowed for the investor, and as such it cannot be negative;
- for the new regulatory period, the RFR of ADR equal to 2,82% in nominal terms, is equal to 1,3% in real terms, considering the expected inflation rate equal to 1,5%;
- the RFR calculated on the average bond yields of the Italian Government over the last 12 months, lower than the inflation rate of 1,5%, would be negative in real terms;
- the RFR re-calculated for the new regulatory period, includes the minimum adjustment required by the ERA to estimate a positive rate of returns, expected by the investors.

The value of the RFR set for the next regulatory period of ADR is in line with the RFR set in December 2015 by the Italian energy regulator AEEGSI (Autorità per l'energia elettrica il gas e il sistema idrico), equal to 1,5% in real terms, which includes a Country Risk for Italy equal to 1%, and a QE adjustment of 0,5%.

The two regulatory decisions reported by EasyJet's as alternative best practices to estimate the RFR do not provide any evidence against ADR's adopted methodology:

- ANACOM has estimated the RFR for telecom on a two-year average of 10-years treasury bonds issued by countries in Europe, and included a Country Risk Premium for Portugal in the Equity Risk Premium. The RFR estimated by ANACOM in 2012-2013 ranges between 3,89% and 3,93%, that is much higher than the RFR estimated for ADR;
- The Commission for Aviation Regulation has defined the real RFR for the Dublin airport equal to 1,5% in real terms. In its final decision the authority declared: "[u]ltimately, we have left our point estimate of the [real] risk-free rate at 1,5%. The market evidence continues to suggest a lower value might be appropriate; there are regulatory precedents that could be cited to warrant a [real] risk-free rate as high as 2%. On balance, we think that a value of 1,5% when combined with our proposed equity risk premium of 5%, is appropriate".

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Equity Risk Premium

For EasyJet the ERP set to 5% is not in line with the prescriptions set by the ERA and it has been determined on a flawed methodology: according to EasyJet the ERP estimated for ADR should be kept at 4%, as in the first regulatory period, or at least it should take into account the simple average between the arithmetic and the geometric mean of historical Italian yields.
The ERP for the new regulatory period equal to 5% has been set following provisions of Article 40(3) of the ERA:

- the contract defines: i) the ERP equal to the difference between the total market return and the returns of risk free assets, ii) at each price reviews, the value of the ERP must be set taking into account the most recent decisions of other regulators in the infrastructures and utilities sectors;
- for the new regulatory period, the value of 5% of the ERP has been defined according to the methodology described in the contract, and it is equal to the ERP of other recent regulatory decisions taken in Italy for transport and energy sectors.

Table 1 shows the most recent updates of the Equity Risk Premium (ERP) estimated by Dimson, Marsh, and Staunton (DMS) based on historical yields for different countries, calculated as geometric and arithmetic means.

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Table 1: Equity Risk Premium based on historical data until 2015

	Media Aritmetica [A]	Media Geometrica [B]
Belgio	4,4%	2,3%
Danimarca	3,6%	2,0%
Finlandia	8,7%	5,1%
Francia	5,3%	3,0%
Germania	8,4%	5,0%
Irlanda	4,5%	2,6%
Italia	6,5%	3,1%
Olanda	5,6%	3,2%
Norvegia	5,3%	2,3%
Spagna	3,9%	1,9%
Svezia	5,3%	3,0%
Svizzera	3,6%	2,1%
Regno Unito	5,0%	3,7%
Europa	6,6%	3,0%
Media Eurozona	5,9%	3,3%
Media ponderata aritmetica e geometrica per l'Eurozona*	5,6%	
Media ponderata aritmetica e geometrica per l'Italia*	6,1%	

Note:

[A],[B]: Credit Suisse Global Investment Returns Sourcebook 2015, Table 10.
I paesi dell'Eurozona sono: Belgio, Finlandia, Francia, Germania, Irlanda, Italia, Olanda, Spagna.

* I pesi utilizzati sono 87% per la media aritmetica e 13% per la media geometrica.

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- The arithmetic mean of the ERP for Italy is equal to 6,5%, while the geometric mean is equal to 3,1%. The weighted average of the two measures is equal to 6,1% taking into account weights of 2/3 (arithmetic) and 1/3 (geometric), respectively;
- For European countries the arithmetic mean is equal to 5,9%, while the geometric mean is 3,3% and the weighted average with the same weights is 5,6%;
- Even calculating the ERP as the simple average of the arithmetic and geometric means for Italy, as suggested by EasyJet, the ERP is equal to 4,8%, definitely closer to 5% than to 4%, used in the previous regulatory period.

Finally, a review done by a group of economic advisors of the most recent regulatory decisions taken in Europe by regulators in different sectors shows that the current average ERP for European countries is equal to about 5%.

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Asset beta

EasyJet disagrees with the “Blume adjustment” used to estimate the beta and argues the actual asset beta used for the WACC should be equal to 0.5. EasyJet also argues that since ADR is under a dual-till regime and commercial activities are more risky than airport regulated revenues, a downward adjustment should be made to the beta taking into account the lower risk profile of regulated charges.

The Blume adjustment is commonly used in finance and regulation for taking into account the fact that the beta calculated on market returns converges to 1 over time:

- There is a significant body of academic research that argues that the standard methodology used to estimate the cost of capital (CAPM) produced a downward-biased estimate of equity cost for companies with a beta of less than 1. A well-known text of regulatory finance written by R.A. Morin reports on this specific issue:

“[t]he regression tendency of betas to converge to 1 over time is very well known and widely discussed in the financial literature. […] Because of this observed regressive tendency, a company’s raw unadjusted beta is not the appropriate measure of market risk to use. Current stock prices reflect expected risk, that is, expected beta, rather than historical risk of historical beta. Historical betas, whether raw or adjusted, are only surrogates for expected beta. The bets of the two surrogates is adjusted beta. (R.A. Morin, New Regulatory Finance, pp. 72-73);

- peers’ betas were Blume adjusted also in the first regulatory period of ADR 2012-2016, as shown in Annex 23 of the ERA;
- also, according to recent Italian airport regulation provided by the Autorità di Regolazione dei Trasporti (ART) the raw estimates of peers’ betas must be adjusted by the Blume formula (or Bloomberg adjustment) before used in the WACC.

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To estimate the beta of aeronautical activities ideally we should use market returns of a company that earns all of its revenues from airport charges; in practice it is extremely difficult to find a company that is such a “pure play” and it is most common to estimate the beta on a sample of peers that earn most of their revenues from airport charges and the rest from other activities. All the listed companies used to estimate the beta of ADR have a combination of both revenues (airport charges and other activities):

- for the first regulatory period, the group of listed companies used to estimate the beta of ADR included airports under both single- and dual-till regulatory regimes;
- for the current price review the peer group has been restricted to only dual-till airports, including the airport of Paris that recently has been passed from a single-till system to an “adjusted”-till system, which excludes retail and real estate activities from the regulated scope.

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Cost of debt

EasyJet disagrees with the premium of 0,30 on the cost of debt of ADR to remunerate issuing costs.
The backup calculation for the issuing cost of debt has been already provided in the consultation document “Answers to the Questions on the WACC received by IATA and EasyJet” of the 27th of October 2016. Issuing costs of debt, according to different regulations, are compensated either in the WACC or through a cost component in the opex: in the case of ADR the compensation is explicitly foreseen in the WACC and therefore it must be included.

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Q: More on Transit Passengers' Charges

A: FCO's boarding pax charges are calculated using the price-cap formula of the ERA. Through the regulated revenues of a 5-year regulatory period this allows the airport manager to recoup costs of operations and of capital inclusive of fair remuneration and depreciation allowances, within the boundaries of allocations of costs to the regulated service that follow the rules of ENAC's guidelines (guidelines of CIPE directive 38/2007, hereinafter also 'LGA') and are reflected in ADR's certified regulatory accounts.

5-year tariffs calculated using the price-cap formula of the ERA are thus 'equilibrium' average tariffs per departing passenger. Keeping ex-ante overall service revenue unchanged, the average tariff is then differentiated between EU and non-EU passengers and, within those, between origin/destination and transit passengers.

In the first 5-yr period of the ERA, FCO's historical differentiation of boarding pax charges has been maintained. That provided for a higher charge for non-EU passengers.

ENAC's guidelines – which remain reference document for the ERA on issues which are not specifically provisioned for in the contract – highlight that tariff differentiation within a service over a regulatory period has to consider how airport costs vary across applied traffic articulations. Such a general principle was reiterated in an inter-ministerial Decree (October 2013) which has meant to amend/integrate ENAC's guidelines. Consequently, ENAC and ADR have verified applicable tariff differentiation for boarding passenger service and signed a 'II atto aggiuntivo' to the ERA which modified pre-existing Annex 9 to the ERA for 2014-16 application.

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A benchmark analysis across EU airport confirms the abovesaid provisions:

1.Regulatory best practices across Europe have specifically addressed the issue of regulated entities which supply users with different regulated services under a price cap constraint. In cases of high proportion of fixed costs – as typically the case for airports – regulated entities are allowed to raise prices of services with lower price elasticity of demand. It is a market approach that leads to efficient pricing of the single services within the price cap. In the regulated space of EU airports in most cases price-cap is applied to the overall regulated revenue, unlike in Italy where the price cap insists on specific services, thus providing for higher regulatory scrutiny.

2.Transit passengers in major EU airports pay a portion of the boarding charges applied to origin/destination passengers. Based on an analysis conducted at the time of ERA's Annex 9's revision (please see above), that was around 20% in Dublino, around 40% in Zurich, Geneve and Amsterdam, around 50% in Brussels, around 60% in Paris Charles de Gaulle, Parigi Orly, Copenaghen and Frankfurt, around 75%-80% in London Heathrow, Munich, Madrid and Barcelona. Within the limitations of their respective regulatory regimes, these airport managers are provided conditions to set such price differentials according to the different price elasticities of demand within the regulated service(s).

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Q: More on allocation of costs to services under regulatory accounts (focus on general/common costs)

A: ENAC's guidelines (hereinafter also 'LGA') provide binding rules on allocation to services of operating costs for the certification of the company's regulatory accounts (pls see paragraph 5.2.1.1). Provisions 51-53-54-61 of the paragraph cover methods of allocation:

1. Direct and exclusive to a service (eg. material of direct usage; personnel employed on a specific service; utilities if separately metered; depreciation charges of a machinery specifically attributable to one service)
2. Direct to more services ('diretto pro quota' in table below) are costs attributable to airport infrastructures and re-distributed to services according to sq meters occupied as a percentage of total infrastructure's sq meters (eg. cleaning; utilities; ordinary maintenance costs); in applying percentages in sq meters ENAC's LGA advise that areas occupied by technical systems (eg. BHS/HBS) shall be considered with a 66% cap (the aim is to limit allocations of costs to regulated services)
3. Indirect costs shall be allocated via the method represented in provision 61, ie. proportionally to the ratio of direct costs 1. and 2. (pls see above) for a specific service to total direct costs 1. and 2.

In ADR's regulatory application there are three layers of indirect costs that are allocated to services in the following time sequence:

a) General costs of business area
b) General costs of single airport
c) General costs of the airport system (Fco+Cia), ie. costs not directly allocated to services from CEO, CFO, Legal, HR, Auditing, others centralised corporate entities

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For a summarized representation of outcome of cost allocations from 2015 regulatory accounts pls see table below:

Enti	TOTALE REG				NON REG				NON PERTINENTE				TOTALE			
	Diretto	Diretto Pro Quota	Tot Indiretto	Totale	Diretto	Diretto Pro Quota	Tot Indiretto	Totale	Diretto	Diretto Pro Quota	Tot Indiretto	Totale	Diretto	Diretto Pro Quota	Tot Indiretto	Totale
Aviation	34%	28%	25%	**86%**	1%	3%	8%	**12%**	1%	0%	0%	**1%**	36%	31%	33%	**100%**
Commerciale	0%	0%	0%	**0%**	36%	23%	41%	**100%**	0%	0%	0%	**0%**	36%	23%	41%	**100%**
Immobiliare	0%	0%	85%	**85%**	0%	0%	15%	**15%**	0%	0%	0%	**0%**	0%	0%	100%	**100%**
Aree Tecniche	21%	45%	17%	**83%**	3%	10%	3%	**17%**	0%	0%	0%	**0%**	25%	55%	20%	**100%**
Corporate	1%	6%	45%	**52%**	1%	0%	10%	**12%**	37%	0%	0%	**37%**	38%	7%	55%	**100%**
Totale	**23%**	**28%**	**26%**	**77%**	**2%**	**5%**	**8%**	**15%**	**8%**	**0%**	**0%**	**8%**	**33%**	**33%**	**34%**	**100%**
% SOLO REG	**30%**	**36%**	**34%**	**100%**												

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Q: More on capex allocations to services

A: IATA raised that: it is unclear why restructuring costs for Terminal 3 are allocated to 95% to the regulated perimeter, which clearly covers commercial areas as well as infrastructure used by both perimeters (e.g. investments to increase airside traffic corridors, lighting and air condition systems, restructuring of the mezzanine area, etc.).
Around 68% of the value of intervention coded “3.3” (in ‘Scheda A’: ‘Ristrutturazione Terminal 3’) is accounted for by areas ‘arrivals’ and ‘baggage claims’. As it may be clear, these two areas’ costs are allocated exclusively to regulated services. The remaining portions of the intervention – accounting for 32% of its value – are allocated through use of square meters occupied by services in terminal 3.

Also highlighted that another example can be made on ADRs new headquarter building which is allocated with 85% to the regulated perimeter without further explanation.

ENAC’s guidelines (provision 64 of paragraph 5.2.1.1 on allocation of allowed costs to services) clearly indicates that headquarters of the airport management company shall be allocated to services as “indirect costs” (please see also previous answer “Allocation of costs to services under regulatory accounts with focus on general/common costs”). Allocation of indirect costs to regulated/unregulated services is predicated on a ratio of direct costs 1. and 2. (pls see previous answer “Allocation of costs to services under regulatory accounts with focus on general/common costs”) of regulated services to total direct costs 1. and 2. which equals 85% on ADR’s 2015 regulatory accounts. In previous 5-year period – on findings from ADR’s regulatory accounts of the then ‘base year’ 2010 – the ratio was mildly lower (71%) mostly due to ADR’s direct retail services being at that time within the company’s asset perimeter.

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Q: IATA's further thoughts on 4th runway

A: ADR reiterates that the 4th runway is needed by 2021 for releasing new airside capacity. That is confirmed by:

a. current operations that frequently highlight near saturation conditions at peak hours
b. most recent traffic estimates for the medium period.

As suggested by IATA, ADR has already adopted various measures to optimise usage of existing runway systems for the coming years allowing to accommodate forecast traffic to 2021 shared with users in the consultation process:

- 'off peak' tariffs to create price incentives for traffic redistribution;
- working group with all airport stakeholders for more efficient use of resources;
- working group with Enav and Enac to maximise efficiency on flight and taxying procedures.

However, by 2021 these measures will be no longer sufficient to guarantee traffic growth, making the postponement of the availability of the 4th runway no longer a viable alternative.

Also, ADR takes this opportunity to reiterate that the 4th runway positioning shared with users during the consultation process is the optimal solution in relation to:

- capacity enhancement;
- noise impact on surrounding residential areas;
- safety and security issues;
- environmental and landscape issues.

In general, starting with next year's consultation for 2018 tariffs, ADR remains available to discuss with IATA and other airport users a schedule of future meetings also specifically with the aim of covering updates to ADR's capex programme.

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Q: More on capex allowed to incremental returns

A: Context

Capex interventions which are set to earn a higher-than-base WaCC provide incremental airport capacity and reflect higher operating risks for the airport manager. Annex 22 of ADR's Economic Regulation Agreement (so-called 'CDP') provides methodology and details of said projects.

In table below an aggregated list of said projects with respective years of availability to users.

Project and availability	2016	2017	2018	2019	2020
Piazzali in area ovest 1ªfase		x			
Piazzali in area ovest 2ªfase			x		
Arrivi/partenze T3 (ristrutturazione)		x	x		
Acquisizione macchine RX BHS T1	x				
Sistema aerostazioni est	x	x	x	x	x
Avancorpo T3	x				
Riconversione Cargo AZ per BHS/HBS	x				
Cia - Riqualifica aerostazioni 1° fase	x				
Svincolo area est			x		
Ottimizzazione sistemi ed impianti tecnologici			x		

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Economic impacts

In the period, capex interventions which meet the conditions of Annex 22 represent up to 12.8% of ADR's RAB as it can be seen in the table below.

Intervento	2017	2018	2019	2020	2021
Piazzali in area ovest 1ªfase	-	1,2%	1,1%	0,9%	0,8%
Piazzali in area ovest 2ªfase	-	-	1,1%	1,0%	0,8%
Ristrutturazione T3	-	0,3%	0,4%	0,3%	0,3%
Acquisizione macchine RX BHS T1	0,5%	0,5%	0,4%	0,3%	0,3%
Sistema aerostazioni est	0,8%	0,7%	1,6%	5,8%	5,2%
Avancorpo T3	2,3%	2,2%	1,9%	1,7%	1,6%
Riconversione Cargo AZ per BHS/HBS	2,5%	2,3%	2,0%	1,8%	1,6%
Cia - Riqualifica aerostazioni 1° fase	0,1%	0,1%	0,1%	0,1%	0,1%
Svincolo area est	-	-	0,8%	0,7%	0,6%
Ottimizzazione sistemi ed impianti tecnologici	-	-	0,1%	0,0%	0,0%
as % to total RAB	**6,3%**	**7,3%**	**9,5%**	**12,8%**	**11,3%**

As a consequence, in the 5-year period 2017-21 ADR will have a positive effect on its regulated return within the range of 25-48 basis points.

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Eligibility of projects according to ERA's Annex 22

Annex 22 to the ERA sets the following general rule linking provision of additional capacity and eligibility of projects to incremental returns:

AIRSIDE	HIGH			capacity incr. %	≥	10%
	MEDIUM-HIGH	5%	≤	capacity incr. %	<	10%
	MEDIUM-HIGH	2%	≤	capacity incr. %	<	5%

TERMINAL	HIGH			capacity incr. %	≥	25%

As for compliance with the requisites of Annex 22, pls see below project details split between airside and landside.

For airside projects the following tables – the former on runway and taxiway, the latter on aprons – provide the most significant project indicators relevant for attribution of incremental returns:

Aprons

	capacity pre	capacity post	capacity incr. %	WACC
ADEGUAMENTO SATELLITE PER A380-787	51	53	4%	MED
PIAZZALI AA/MM IN AREA EX POSTE - QUADRANTE 200	138	144	4%	MED
ESTENSIONE PIAZZALI ZONA CARGO	144	152	6%	MED-HIGH
AREA OVEST 1^ FASE	121	128	6%	MED-HIGH
PIAZZALI LB E AREA DI IMBARCO J E DEMOLIZONE T5	70	75	7%	MED-HIGH
PIAZZALI AREA TECNICA AZ	152	163	7%	MED-HIGH
AREA OVEST 2^ FASE	128	138	8%	MED-HIGH
ESTENSIONE PZL IN AREA EST	163	183	12%	HIGH

Note: for aprons capacity pls note the following (i) Piazzali LB: capacity increase vs total number of aprons served with Loading Bridges before intervention starts (+5); (ii) Others: capacity increase vs total number of aprons available before intervention starts

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Runway/Taxyway (tariff impacts post 2021)

	capacity pre (*)	capacity post (*)	capacity incr. %	WACC
Pista 4	90	114	27%	HIGH
Completamento raddoppio Bravo	15	7,5	50%	HIGH

(*) movs per peak hour in busy day

For landside projects the following tables provide the most significant project indicators relevant for attribution of incremental returns:

Ristrutturazione T3	**2016**	**2023**	**capacity increase**
Mq netti hall check in	13.328	18.248	
TPHP	3.200	3.800	
mq/TPHP	4,17	4,80	15%
Mq netti arrivi (sala bag + arrivi landside)	10.046	16.107	
TPHP	3.200	3.800	
mq/TPHP	3,14	4,24	35%
Media (tot intervento)			**25%**

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Sistema Aerostazioni Est	2016	2021	capacity increase
Mq netti hall check in	4.941	7.244	
TPHP	1.450	2.000	
mq/TPHP	3,41	3,62	6%
Mq netti circolazione airside	4.904	15.093	
TPHP	4.800	5.800	
mq/TPHP	1,02	2,60	155%
Mq netti ric bagagli	3.396	5.652	
TPHP	1.450	2.000	
mq/TPHP	2,34	2,83	21%
Media (tot intervento)			**61%**

Avancorpo T3	2016	2017	capacity increase
Mq netti circolazione airside	3.384	6.889	
TPHP	2.770	2.800	
mq/TPHP	**1,22**	**2,46**	**101%**

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BHS ex Cargo	capacità pre intervento (bag/h)	capacità post intervento (bag/h)	capacity increase
bag / hour	7.800	11.600	49%

Ciampino	2016	2022	capacity increase
Mq netti hall check in	1.808	1.830	
TPHP	1.273	870	
mq/TPHP	1,42	2,10	48%
Mq netti circolazione airside	506	772	
TPHP	1.273	870	
mq/TPHP	0,40	0,89	123%
Mq netti ric bagagli	1.364	1.120	
TPHP	1.273	870	
mq/TPHP	1,07	1,29	20%
Media (tot intervento)			**64%**