

CTT

POSTAL SECTOR

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COMPANY REPORT

3 JANUARY 2018

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Addressing Mail's declining trend

- **Recommendation:** A BUY position is recommended, with a price target FY18 of 4.65€, representing an upside potential of 27.7% and a total shareholder return of 34.3%.
- **Mail (72% of revenues):** Mail's volume has been declining around 3.5% (CAGR3yr), deteriorating mail's operational efficiency along the years. CTT can mitigate this effect with 1) an increase in prices (1.5% YoY); 2) investing in more sophisticated technology (25M€ of incremental CAPEX as in the restructuring plan).
- **Express & Parcels (17% of revenues):** The acquisition of Transporta and the obtention of a large client in Spain (Amazon Spain) defined E&P in 2017. EBITDA margin 9M2017 is lower (-1.5%) by this year's inclusion of Transporta integration costs, with predicted reversal of this situation going forward.
- **Banco CTT:** Zero commission seems to be leading to a large number of current accounts and deposits, whereas mortgage loans are currently at a low level as they were only introduced this year. As this is the main source of Banco CTT's revenues, the breakeven point is forecasted to happen in 2020.
- **Share performance:** Following the 3Q results announcement a large decrease in share value from 5.06€ to 3.96€ ensued, driven by a cut in dividends from 0.48€ (last year) to 0.38€ and a worse cost performance than expected.
- **Key insight:** Cost controlling is the key lever for increasing share value as mail's declining trend is irreversible and Banco CTT is still at an early stage. The rate at which mail's volume declines is the key driver for CTT's valuation.

Recommendation: BUY

Vs Previous Recommendation -

Price Target FY18: 4.65€

Vs Previous Price Target -

Price (as of 2-Jan-18) 3.64€

Reuters: CTT.LS; Bloomberg: CTT PL Equity.

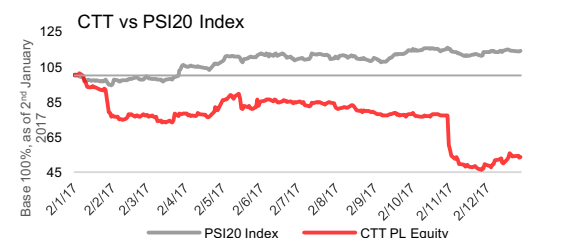
52-week range (€) 3.01-6.67

Market Cap (M€) 546.0

Outstanding Shares (M) 150.0

Flee-float (M) 126.2

Source: Reuters; Financial Times.



Source: Bloomberg.

	2016	2017F	2018F
Revenues (M€)	696	691	695
EBITDA (M€)	102	86	93
Net Profit (M€)	61	37	36
EPS (€)	0.41	0.24	0.24
P/E (x)	15.79	-	19.28
Interest coverage (x)	17.4	15.3	17.5
ROE (%)	26.3	14.3	13.4
ROCE (%)	17.7	10.5	10.8
Sales/Assets (x)	0.5	0.4	0.3
Assets/Equity (x)	5.6	7.4	9.6

Source: Own estimations.

Company description

CTT - Correios de Portugal, whose origins trace back to 1520, currently provides postal services, express & parcels delivery in Portugal, Spain and Mozambique, financial services and banking services. The privatization process occurred in 2013 and it was followed by an IPO in the Euronext Lisbon market.

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY JOANA TORRES, A MASTERS IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL.

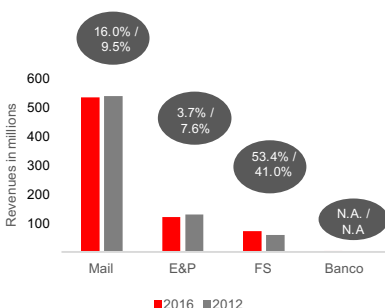
(PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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Executive summary

Graph 1 – Revenues per segment in 2016 and 2012 and EBITDA margin (2016/2012 in percentage).



Source: CTT Annual Report.

CTT – Correios de Portugal, S.A. is going through a change in its structure. While its core business is still Mail, this segment’s volume is going down, as the Express’ market, the second large segment, is raising. With a lower volume, the Financial Services added the most value per revenue generated in 2016 accounting for an EBITDA margin of 53.4%(graph 1), while Mail amounted to 16.0% against 9.5% in 2012 - particularly a bad year. As for Banco CTT, which started operating in 2015, its volume is still low and still has not reached the turnover point, which is predict to happen in 2020. A lack of control on Mail and E&P costs has been presented by 3Q results, therefore a restructuring plan was announced in December, which main goal was to control those costs and improve EBITDA in 45M€ up to 2020. However, this value is highly dependable on the mail’s volume growth.

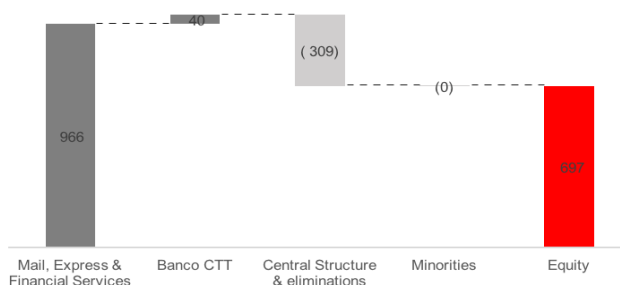
In summary, the CTT’s main drivers regarding each segment are:

- Mail: decrease of its volume due to the increase of the use of electronic solutions; almost the exclusive provider of mail in Portugal; low prices.
- Express & Parcels: large increase of e-commerce parcels; biggest player in Portugal; lower prices than its main competitors in the Iberian market.
- Financial Services: mainly driven by savings & insurance; large decrease in transfers and payments.
- Banco CTT: zero commission on current accounts and debit cards; high customer acquisitions level, which translates in a large growth on deposits.

The main conclusion derived from both sensitivity analyses performed in this report that relate Mail growth with volume of loans provided by Banco CTT and the cost side of E&P is that CTT’s value is almost solely dependent of the Mail growth performance, which is forecasted to be -3.5% YoY.

In order to proceed to a price target, a sum-of-the parts was applied, constituted by two DCF models and a flow to equity method. It led to a share price target of 4.65€, representing a total shareholders return of 34.3%. The break-down of the contribute of each sum-of-the-parts can be seen in the following figure.

Figure 1 - Sum-of-the parts.



Source: Own estimations.

Company overview

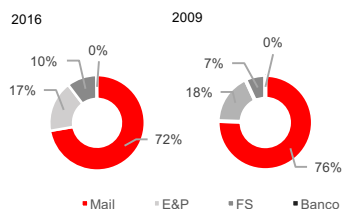
Company description

CTT – Correios de Portugal has been operating for 5 centuries, beginning its activity in 1520 on telecommunications and mail. In 1992, the two areas were separated, emerging CTT as it is known today, being still owned by the Portuguese government. While, in 2013, the government decided to privatize CTT, becoming the first publicly traded company with 100% free-float in Portugal at the time.

Currently, CTT brand is recognized by the Portuguese people as one of the most trusted Portuguese brands. Leveraging on this advantage, in 2015, CTT decided to enter in the banking sector, as several European mail companies have done in the past. Besides that, the company operates in other 3 business areas, which are Mail, Express & Parcels and Financial Services distributing activity among its 9 subsidiaries (appendix 1).

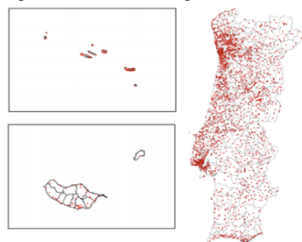
CTT has a widespread network which delivers key services, such as pensions collections, all across the country which contributes to consumer trust

Graph 2 – Revenue's weight by segment in 2016 and 2009.



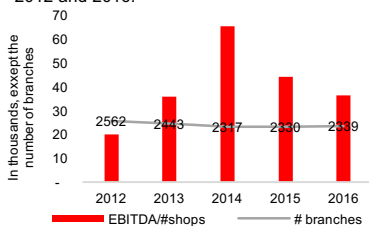
Source: CTT Annual Report.

Figure 2 - CTT Postal agencies.



Source: CTT Annual Report; ANACOM.

Graph 3 – Mail EBITDA per branch between 2012 and 2016.



Source: CTT Annual Report.

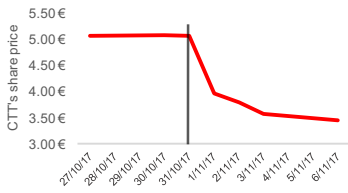
The revenues on Mail have been declining, however it still continues to be the core segment, representing 72% of the total revenues in 2016 (graph 2), Express & Parcels amounted 17%, Financial services 10% and Banco CTT 0%, since the bank was in an early stage in 2016.

CTT counted with 12479 full-time employees distributed across a large retail network, accounting for 615 postal delivery offices and 1724 postal agencies (partnerships branches) in the end of 2016 (figure 2), covering the entire territory and being one of the largest retail network in Portugal. However, the number of branches were reduced from 2443 in 2013 to 2339 in 2016. In terms of mail's profitability per branch, EBITDA/number of branches has been improved 2% from 2013 to 2016, that resulted from an adjustment on the number of branches compensating the reduction on the mail's volume (graph 3).

This important asset allows CTT to obtain the concession contract from the Portuguese government, becoming the Universal Service provider and amounting to a market share of 92.4% in 2Q 2017 regarding both Mail and parcels' volume, according to ANACOM. Moreover, one of the main advantages, that derives from this large network, is related with telecommunications. A partnership in this sector was established with Altice in 2014 and expired in the end of 2016, that allowed CTT to receive an upfront payment of 15 million euros in charge of selling Altice's products in their branches. No similar partnership is expected soon. Furthermore, the enormous number of branches all around Portugal, helps CTT to be seen as a

preferential partner for the sale of government products, such as savings products, toll's payments or National Pensions Center money orders.

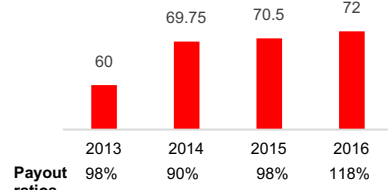
Graph 4 – CTT's share price after 3Q17 results.



Source: Bloomberg.

This extensive asset can also create difficulties to CTT due to its inflexibility. In fact, it has happened this quarter, e.g. when the mail's revenues have declined not accompanied by the cost's side (even bigger than in the same period of the last year) and consequently leading to a very disappoint 3Q results for investors, proven by the decrease in the share price from 5.06€ to 3.96€ (graph 4).

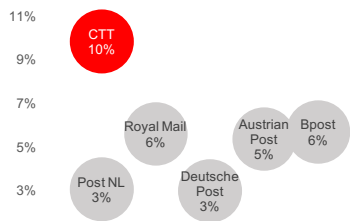
Graph 5 – Dividend payment and payout ratio.



Source: CTT annual report.

Since the IPO, CTT has increased its dividends from 0.4€ in 2013 to 0.48€ in 2016, corresponding to a dividend payment of 72 million euros (graph 5). In 2013, the payout ratio corresponded to 98%, while in 2016, to maintain this level of dividends, the payout ratio was 118%. Due to low results in 2017, CTT can not maintain this payout ratio. Therefore, they announced, at the disclosure of 3Q results of 2017, an historic cut on dividends, proposing its value to be 0.38€ per share paid in 2018.

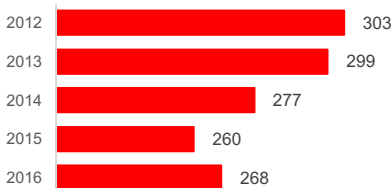
Graph 6 – 2016 dividend yield average by peer.



Source: Bloomberg.

The payment of dividends play an important role for CTT's inventors nowadays. The verified return since the IPO to nowadays is -15.9%, while without the payment of dividends - investing them - would be even more negative (-34.3%). Nonetheless, CTT continues to provide one of the largest dividend yields when compared to its peers (graph 6). Moreover, CTT's share have behaved better than the predicted by JP Morgan¹ in 2014 in terms of annual return including dividends (51% vs 40%). In the following years, CTT's results have disappointed the investors, e.g. as in this quarter (3Q2017), with an expected return higher than the verified. Actually, the consensus² predicts a 18Y price target of 4.20€, on average.

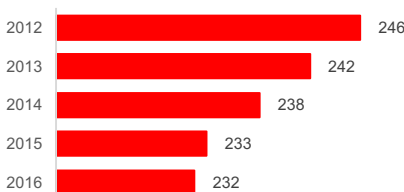
Graph 7 – Employees benefits in million euros.



Source: CTT annual report.

Although, CTT has been managed by Francisco de Lacerda (CEO), who is expected to continue to manage the company until the end of its term (2019). The key challenge addressed by the management team has been crucial on the different chapters of CTT, such as managing the IPO or by applying large cost reductions, e.g. a reduction of employees benefits on obligations of telecommunication, corresponding to a decrease of 12% since 2012 (graph 7) or even by a reduction on the external supplies and services costs of 6% from the same period (graph 8). Recently, CTT has launched a restructuring plan focus on "operational transformation of the mail business" to improve its profitability (more details later).

Graph 8 – External supplies and services costs in million euros.



Source: CTT annual report.

¹ 2014 Price target of 7.4€ according to a J.P.Morgan report by the date of 15th January of 2014.

² The consensus is constituted by Jefferies, JP Morgan, Santander, BPI, Haitong Bank, Intermoney, Morgan Stanley, BBVA, Barclays, Goldman Sachs and CaixaBI.

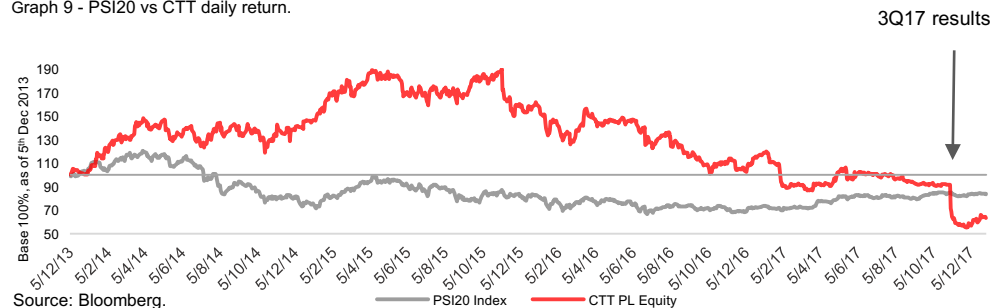
Shareholder's structure

Before the privatization, CTT was fully owned by the Portuguese state indirectly through Parpública - Participações Públicas (SGPS), S.A.

CTT's capital was opened to the private sector in two stages. The first step – IPO – occurred in early December of 2013, when the Portuguese government issued 68.5% of its CTT's holding on EuroNext Lisbon market, obtaining 569 million euros. Later, in September of 2014, the remaining participation by Parpública (31.5%) was also sold on an accelerated bookbuild model directly to institutional investors by 340 million euros. At that time, the whole social capital was fully represented on EuroNext Lisbon and the larger shareholder was Standard Life Investments (Holdings) Limited, owning 6.67% of CTT's social capital.

Since then, the market capitalization of CTT has fluctuated a lot, depreciating 34.1% since the IPO, while the PSI20 index decreased 14.8% from the same date, which can be observed in the following graph (graph 9).

Graph 9 - PSI20 vs CTT daily return.



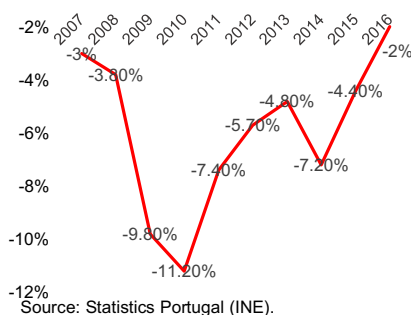
Source: Bloomberg.

Currently, CTT has 150M shares outstanding and a market capitalization of 546.0M€. There are 8 shareholders holding more than 2% of CTT's social capital, whereas the large shareholder is Gestmin, SGPS, S.A., representing 11.26% of the CTT's social capital (appendix 2). After the restructuring plan announcement, the majority shareholder has improved its position from 10.46% to 11.26%.

Macroeconomic overview

CTT operates mostly in Portugal, therefore it is important to understand some dynamics in the Portuguese economy. In the last few years, Portugal was under economic stress, with a financial and sovereign debt crisis in Europe, a deficit of 9.8% of the GDP in 2009 (graph 10) and later by the presence of IMF in 2011. At that point, the GDP was falling around 4%, the unemployment rate registered 13%,

Graph 10 – Portuguese deficit in % of GDP.



Source: Statistics Portugal (INE).

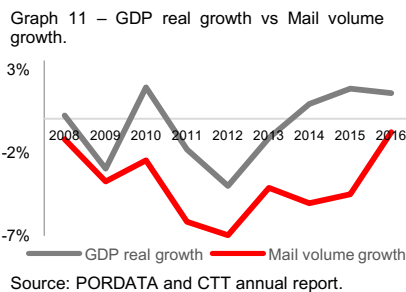
The Portuguese State received 909 million euros, regarding the CTT's privatization.

continuing to growth on the following years, accompanied by a high yield on the Portuguese debt.

The aforementioned privatization of CTT was part of larger privatizations strategy undertaken by the previous government with the objectives of shifting the burden of sustaining public debts to private hands (not very relevant for the case of CTT) and increase the capital invested in such companies while receiving some cash in (909 million euros in CTT' overall privatization).

After 5 years and two established governments in power, some of the austerity measures were reverted and the national economy is recovering. In 2016, the Portuguese GDP was worth 185 billion euros, overtaking the pre-crisis level and representing a GDP growth rate of 1.5%³. The good news continues with a surplus on the commercial balance, a recent upgrade on Portuguese debt from the rating institutions and the unemployment rate going down. Nonetheless, the debt continues to be high, amounting to 130.1% of the Portuguese GDP in 2016, while the deficit has been reduced to 2% in 2016, the lowest value since 1974.

To conclude, the OCDE has good prospects for the Portuguese GDP, forecasting a CAGR8yr of 1.56%, between 2017 and 2025. As seen in the graph 11, CTT's mail volume has followed the same trend as the GDP's growth in the past. As the economy is growing and this trend is expected to continue, national companies may stop or slow down their continuous focus on cutting costs such as mail, implying a smoother decrease in mail volume.



Postal Sector

The postal sector has specific regulations and it is characterized by several dynamics, which will be discussed individually.

Regulation in postal sector within Europe

Back to 1874 a postal network, Universal Postal Service (UPS), was established across all around the world in order to send and receive mail universally with quality and accessible prices from every point of each territory on a range of basic services. Those basic services constitute the Universal Service Obligation (USO) that need to be guaranteed in each territory. In Portugal this basket is constituted by: *“postal service for letter mail (excluding addressed advertising), books, catalogues, newspaper and other periodicals weighing up to 2kg; a postal service for parcels*

The UPS established a basket of basic postal services under the name of Universal Service Obligation.

³ According to PORDATA database.

weighting up to 10kg, as well as delivery in the national territory of postal parcels received from other Member States of the EU weighting up to 20kg and a registered mail and insured mail service”⁴.

As for the Portuguese context within the European Union and non-liberalized postal markets, the European Parliament launched an initial Directive 97/67, followed by Directive 2002/39 and Directive 2008/6, in order to liberalize gradually the postal market, which was completely concluded in 2013 in EU. In those directives, the European Union decided 1) common rules on the development of the internal postal market within EU to improve its quality; 2) how to finance the USO and its calculations; 3) the period to implement postal market liberalization.

At the national level, the Directive 2008/6/EC was transposed to the Portuguese law through *New Postal Law* in 2012, allowing a total liberalization of the postal market in Portugal and abolishing the areas under the USO that were exclusively provided -reserved areas- in Portugal by CTT (Universal Service provider). From that period onwards, every company can provide services covered in the scope of the USO, through individual licenses. However, since the USO has to be continuously provided, the State establishes a concession contract of 3 years with a postal operator, which in Portugal is CTT, due to its large network and high standard quality (figure 3). CTT can be entitled to a compensation for the net cost of USO when this constitutes an unreasonable financial burden.

CTT will continue to provide exclusively some reserved services up to 2020, which are: *the placement of letter and mailboxes on public roads for the acceptance of mail, the issuance and sale of postage stamps with the word “Portugal” and registered mail used in legal or administrative proceedings*. After this period, the new Universal Service provider will be selected regarding a public administrative process. However, it does not represent a significant risk for CTT, as they continue as a quasi-monopolist in this segment, even after the market liberalization, with a market share above 90% nowadays (graph 12).

Moreover, the postal activity in Portugal is regulated by ANACOM (National Authority for Communications) that supervises the standards on quality, assuring minimum requirements, and revising players’ price practice under reserved and unreserved services of USO. The maximum variation in price up to 2017 was given by the following formula, whereas within these limits CTT can decide their prices.

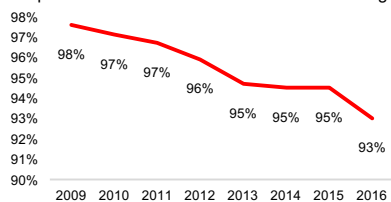
Postal law and the liberalization of the postal market happened in Portugal in 2012.

Figure 3 – CTT’s standard quality.

	Minimum	Score
Priority mail		
% delivered on the following day (mainland)	93.5	93.8
% delivered within 2 days (Azores and Madeira)	84.0	89.4
% delivered within 10 days	99.75	99.87
Ordinary mail		
% delivered within 3days	95.5	96.1
% delivered within 15 days	99.77	99.72
Newspapers and periodicals		
% delivered within 3 days	95.5	98.3
International mail		
% delivered within 3 days	85.0	86.0
% delivered within 5 days	95.0	97.1
Parcels		
% delivered within 3 days	90.5	90.7
Registered Mail		
% delivered on the following day	89.0	92.0
Waiting time at post offices		
% customers assisted within 10m	75.0	86.4

Source: CTT annual report 2016.

Graph 12 – CTT volume’s market share in Portugal.



Source: ANACOM.

⁴ According to ANACOM.

$\overline{\Delta Price} = (CPI + CFCPI) + 1.6\% + CFPT$, where CFCPI is the corrector factor for CPI of the previous year and CFPT is the corrector factor of postal traffic.

For 2018 onwards, the regulatory framework, that consists in a price formula, quality and territory density criteria, is currently being discussed between ANACOM and CTT, which result should be in line with CTT’s proposals, as in the previous years.

One recent example of the measures undertaken by ANACOM to regulate the mail market, was the decrease in price from 0.63€ to 0.60€ for priority mail demanded because, according to ANACOM, CTT did not fulfill the % of ordinary mail delivered within 15 days’ benchmark, in 2016.

European and national Postal market dynamics

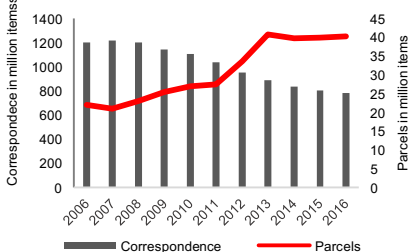
In the European postal activity there are two opposite movements - the decrease in traditional mail and the increase in express & parcels mainly on e-commerce. Post Europ estimates that 72 billion letters and 4 billion parcels are sent across Europe nowadays corresponding to a turnover of 150 billion euro, while in Portugal the total post traffic reached 783 million letters, 40 million in parcels in 2016 (graph 13) and a mail turnover of 636 million euros⁵, showing the same two opposite movements as in the European market.

Some important highlights regarding the postal market in Portugal:

- **Postal network:** Concerning the Portuguese postal network, it has decreased in all aspects, access points, distribution centers and vehicle fleet, where CTT ranks first, corresponding to 93%, 65% and 61% of the total, respectively.
- **Demographic aspects:** the postal traffic per capita has decreased around 30% during the last 8 years, the postal coverage (access points/100 Km²) declined 35% on the last 10 years and the postal density (inhabitants/access point) increased 49% in the same period, due to the decrease of access points.
- **Universal Service:** According to ANACOM, the limits of the universal service weighted 84.3% of the total postal traffic in Portugal in the 2nd quarter of 2017, meaning that most of this market is within the scope of the definition of basic services.

Increasing trend in e-commerce and decreasing trend in traditional mail.

Graph 13 – Correspondence and Parcels volume in Portugal.



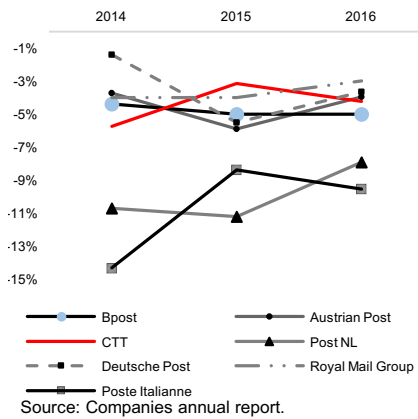
Source: Eurostat.

In Portugal, the USO covers almost the total postal traffic.

⁵ According to ANACOM.

Practiced prices in Portugal are the lowest prices among EU members.

Graph 14 – Growth of addressed mail by CTT's peer.

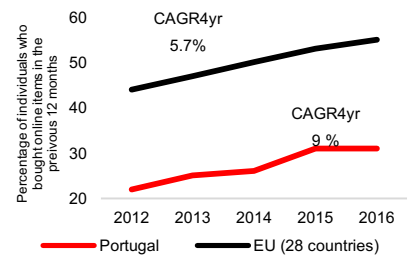


- Prices: Portugal has the 4th lowest price practiced to send a standard letter (1st class) abroad weighting less than 20g, whereas the EU28 average is 1.08€, while in Portugal it is 0.72€.

In the past years, a negative trend on addressed mail volume affected all CTT's peers, where CTT has one of the "best" performances in this context, inclusive in 2015 accounted the less negative growth on the most important CTT mail's segment (graph 14).

All those metrics reflect the decreasing importance of mail in Portugal, and also in Europe, and that consumers use postal operators mainly for basic services covered in the USO, which also highlights the importance of being the USP.

Graph 15 – Portugal and EU28 e-commerce growth between 2012 and 2016.



On the other hand, the Express & Parcels market can be segmented in two areas: 1) domestic and cross-border; 2) traditional B2C, B2C e-commerce and B2B. Whereas all those segments are growing in Europe at different rate, being B2C e-commerce the segment with the biggest growth in Europe.

Given the high potential B2C e-commerce segment, it is interesting to analyze some dynamics:

- Increase of purchases made online between 2012 and 2016 (graph 15):
 - 1) EU28 average: the number of individuals who ordered items in the previous 12 months increased from 44% to 55% from the total individuals aged from 16 to 74, corresponding to a CAGR4yr of 5.7%.
 - 2) Portugal: the 6th European consumers who order less over the internet, amounting to 31% in 2016. Nonetheless, its CAGR4yr rounded 9.0%. This growth is expected to continue to increase and approaching the EU28 average, since younger individuals are more willing to order items at the internet and the elders are the less prone to online shopping. Nowadays, the age of the majority online buyers is between 25 and 44 years old⁶.
- Online retailers in Portugal: the 10 largest online players in Portugal: 3 do not entail physical delivery (Booking, TAP and Ticketline); 1 delivered by themselves (Continente); 4 are delivered by CTT (Fnac, La Redoute, Aliexpress, Ebay); 3 are delivered by other express companies (Amazon UK, Chronopost, La Redoute⁷). Considering all the online retailers, the

⁶ According to "E-commerce_statistics_for_individuals_v2" – Eurostat.

⁷ The delivery process of La Redoute consists in distributing by Chronopost and by a pick-up system in CTT's stores.

most used service is provided by CTT, corresponding to 40% of all online purchases in 2016.

In Spain, the number of online buyers represented 44% of the resident population aged between the 16 and 74 in 2016, amounting to 16.6 millions of individuals. The revenue generated in Spain in the B2C e-commerce was 11.5 billion euros in 2016. In terms of delivery companies, the market was highly fragmented in 2014, whereas the company with the largest value market share was SEUR, accounting to 15.8%, followed by MRW with 15.0%. Both the Portuguese and Spanish market are also served by multinational express companies operating in several countries, such as MRW and SEUR.

Therefore, both Portuguese and Spanish market predict a faster growth in the express segment than the other European countries, since there was a delay on e-commerce penetration due to consumer habits and to an old population. In the latest presentation delivered by CTT in relation to its restructuring plan, they also identified this trend by classifying the Portuguese market as a low penetrated one (1 parcel per capita), while Spain was considered slightly above (4 parcels per capita). Nonetheless, given that some markets such as the US have 16 parcels per capita, they identify high upside potential for this segment.

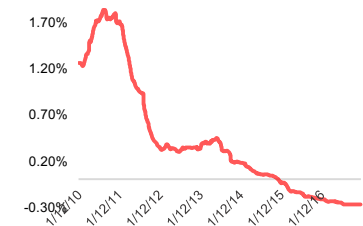
Postal Bank Sector

Nowadays the banking sector is very different than what it was before the financial crisis, which resulted from the crisis itself and from other factors, such as technological developments or individual expectations. One of the answers of the European Union to the financial crisis was to create a Banking Union, which main goal is to create a solution to deal with fragile banks. This new union consists on a Single Supervisory Mechanism, a Single Resolution Mechanism and an European Deposit Insurance (EDIS). However, currently the banking union is still incomplete, missing mainly the EDIS, which has been negotiated across the EU members. The EU is also focus on guaranteeing that banks do not fail in distress test.

On the last years, one of the main surprises on the banking activity was EURIBOR on negative rates (graph 16) for all its periods. It had a large impact, mainly on the rate paid on credit conceded by the banks, which are normally indexed to the EURIBOR plus a spread. In fact, if the EURIBOR goes down more than the spread, the global interest rate can be negative, meaning that banking customers are not paying interest on their credit (or even they are amortizing this difference on their

Since the financial crisis, the ECB equity ratio requirements are stricter.

Graph 16 – EURIBOR 6M historic 2010-2016.



Source: Bloomberg.

credit). Eventually, these rates are going up to positive levels, which is expected to happen in 2019 and achieved 1% after 3 years on the EURIBOR 3M, according to derivatives markets. In Portugal, variable rates cover almost the entire mortgage credit conceded, even considering the increase in the use of fixed rates in 2016. In the case of variable rates, the EUBIBOR most used is EURIBOR 6M⁸.

The origin of postal banks traces back to the United Kingdom as traditional banks were not able to fulfill the needs of the poorest population, on both deposits and savings. Therefore, postal companies were pointed out as a natural competitor to those banks, since postal networks already covered the national territories and they were usually owned by the State, as well as being perceived as very trustful brands. Therefore, postal banks are characterized by offering their services essentially to households, mainly low-income, and small enterprises without taking (much) credit-risk in their balance sheet.

Currently, there even exist postal banks under the name of bank without a banking license, e.g. Banco Posta, owned by Poste Italiane, that provides financial services. The majority of European postal banks are not anymore owned by postal operators (e.g. Postbank N.V. - acquired by ING Group -, Bulgarian Postbank, Deutsche Postbank – acquired by Deutsche Bank). The three biggest European postal banks still owned by postal companies are Banco Posta, La Banque Postale and Post Office financial services – a small picture is presented in the table below (table 1).

Table 1 – Summary of the three biggest European postal banks.

Postal company	Financial Services' segments	Financial Services and banking revenues	Comments
Poste Italiane (Banco Posta)	- Insurance (mainly) - Asset Management - Retail banking	2016: 29 066 M€ 2015: 26 614 M€	Credit given in partnership with third-parties. Very important bank in Italy with 94% of the Italian having a bank account there in 2014.
La Poste (La Banque Postale)	- Insurance - Asset Management - Retail Banking	2016: 5 602 M€ 2015: 5 745 M€	Operates as a traditional bank in France (6 th biggest in net banking interest terms), with a loan-to-deposits rates from customers of 74% in 2016.
Post office (financial services)	- Insurance (50%) - Lending products - Saving products	2016: 304 M€ 2015: 290 M€	Products offered in partnerships with third-parties.

Source: Companies annual report; Statista.

Segment description

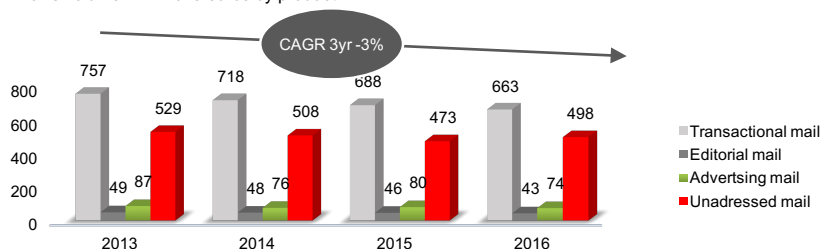
Mail

The macroeconomic distress and the technological transformation led companies and individual consumers to reduce their costs and needs on mail, leading to a

⁸ According to Statistics Portugal (INE) and Bank of Portugal.

global CAGR3yr on CTT’s mail volume of -3% (graph 17), mainly driven by the decreasing in transactional mail. Nonetheless, this segment continues to be the CTT’s core segment, representing 72% of the total revenues in 2016.

Graph 17 – Mail’s volume in millions euros by product.



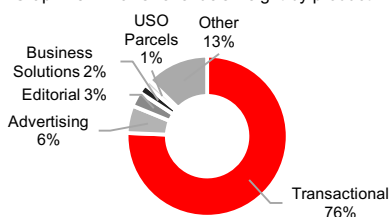
Source: CTT Annual report.

This segment works through CTT S.A. (parent company) and 3 subsidiaries. In the recent years no acquisition for this segment was done.

This segment comprises addressed mail (transactional mail, editorial mail, advertising mail), and unaddressed mail which includes: other business solutions (printing & fishing, mailmanager, video encoding, hybrid mail, Recibos online), USO parcels, philately and retail.

- **Transactional mail** – correspondence until 2kg, both in the domestic and international market.
- **Editorial mail** – addressed mail such as magazines or newspapers that aim to reach a greater range of people.
- **Advertising mail** - direct marketing and relational marketing, under the name CTT Ads. It is done through traditional mail, e-mail or text message.
- **Business solutions** - other services complementary to mail, such as mail digitalization, mail classification.
- **USO parcels** – parcels not included in the E&P segment and under the USO, weighting up to 10kg, as well as delivery in the national territory of postal parcels received from other Member States of the EU weighting up to 20kg.
- **Philately** – selection of products, such as commemorative books, lottery, special stamps that are a complement to mail.
- **Retail** – sale channel responsible for the sales of postal-related products, such as envelopes and packaging materials.

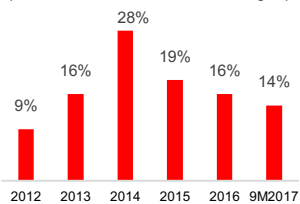
Graph 18 - Mail’s revenue’s weight by product.



Source: CTT Annual report.

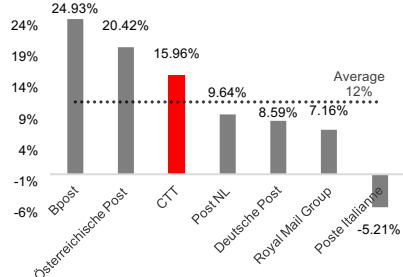
In 2016, transactional mail was the main source of revenue, accounting 76% of the total in this segment (graph 18). Advertising mail, editorial mail and business solutions are the other main drivers of the mail segment, representing 6%, 3% and 2%, respectively. Along the years, the transactional and editorial mail are declining both around 4%. This break on mail’s revenues is putting pressure on the mail structure, demonstrated by the decline in the mail EBITDA margin

Graph 19 – CTT's Mail EBITDA margin per year.



Source: CTT Annual report.

Graph 20 - Mail's EBITDA margin among CTT's peers in 2016.



Source: Companies annual report.

(Revenues/EBITDA) from 28% in 2014 to 14% currently (graph 19), being evident the need of a restructure in the mail network to increase mail's profitability.

The two of the main competitive advantages of CTT in this sector are a low price practiced and a large network that creates difficulties to other players to enter, guaranteeing a market share of 93% in 2016 in Portugal.

Furthermore, CTT's mail segment positioned itself among one of the best operations regarding mail in Europe, presenting an EBITDA margin above the average of its peers (graph 20). It is important to note that there are intrinsic factors affecting this margin, such as a compensation given to Bpost to the provision of universal services. While, when compared to mail's volume by employee (full time equivalent), CTT is slightly below the average of the same peers. However, if the restructuring plan advances with a goal of reducing the labor force by 800 employees, this metric becomes slightly above the average. In terms of mail's revenue by employee, CTT is underperforming its peers, explained by the lower prices practiced than the other European operators (table 2).

Table 2 – Indicators of mail volume and mail revenues per employee among CTT's peers in 2016.

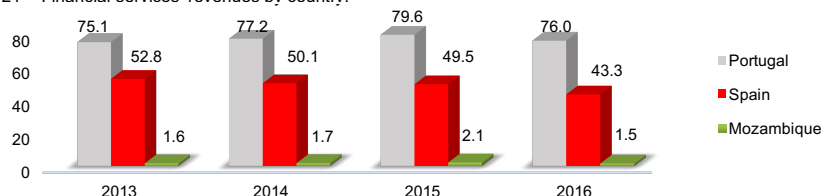
(in thousand)	CTT	Bpost	Österreichische Post	Post NL	Deutsche Post	Royal Mail Group	Poste Italiane	Average
Mail's volume/FTE	102.4	132.4	254.7	92.5	40.6	N.A.	25.6	108.0
Mail's revenue/FTE	42.8	77.8	72.2	78.4	36.6	29.2	61.2	56.9

Source: Companies annual report.

Express & Parcels

The Express & Parcels business amounts to 17% of the total revenues in 2016, operating within Spain, through "Tourline", Mozambique, through "CORRE" and mostly in Portugal through "CTT Expresso" and "Transporta" (graph 21).

Graph 21 - Financial services' revenues by country.



Source: CTT Annual report.

Regarding this segment, CTT betted in the Spanish market in 2005, with the acquisition of Tourline Express, which generates 36% of the revenues of this segment. In the past years, in the context of volume reduction in Spain, CTT decided to do a large HR restructuring, with reductions of staff costs in order to conduce to a higher "commercial capacity". The strategy in Express & Parcels in 2017 is highlighted by an important partnership done with Amazon Spain, responsible for a large parcels' volume, which on its best-selling day – called Prime

Day- sold 10 items per second in Spain. Tourline's market share in Spain was 6.4% regarding the volume and 7.6% regarding the generated value in 2014.

In Mozambique, CTT is present since 2010, when acquired 50% of the share capital of "CORRE", where CTT intends to be the most relevant player serving the country. However, it only generates around 1% of the total revenues of this segment, corresponding to 1.5 million euros and 100 thousand items transported; at the same time the revenues are very affected by the exchange rate.

Regarding the express operation in Portugal, it yields 63% of the total revenues in the segment and 11% of the total group, whereas CTT Expresso was the biggest player in Portugal in 2Q2015 (appendix 3). CTT continues to believe in the potential of this segment, proven by the recent acquisition of "Transporta" in May of 2017 that allowed to delivery items above 30kg. This company was acquired for a very low price (1.5M€), since it was losing money. After the announcement of the intention to acquire "Transporta", the share price increased by 2.64% (0.16€). After this acquisition CTT invested 1.2M€ with HR indemnitees. "Transporta" increased E&P revenues in 5.7M€ until 9M17, representing 6% of E&P's revenue while it has impacted the EBITDA negatively in 0.7M€, excluding the one-time effect of HR indemnitees. For an optimistic scenario of annual revenues contribution of 13.6M€ and an EBIDTA margin of 5%, "Transporta" would have a positive contribution of around 0.68M€, which would imply a payback period of the non-recurrent costs and the acquisition cost of almost 4 years.

Express & Parcels has been integrated with the mail network.

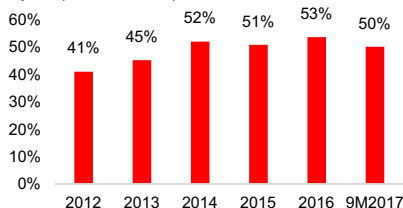
To conclude, the main advantages in this segment are the capacity to attend all the Iberian Peninsula, the competitive price in Portugal allowed also by the integration of Mail and Express & Parcels in 2014 - which were previously outsourced. This integration is almost complete, with 73% of the Express' volume being delivered by the Mail distribution network. This segment has a rather low EBITDA margin, 3.8% in 2016, which justifies the continued investment on this segment in order to generate scale gains, as it is demonstrated by other European peers with a higher scale and a better EBITDA margin (e.g. Deutsche Post with a EBITDA margin of 11% or Post NL also with an EBITDA margin of 11%).

Financial Services

In line with other European postal players, CTT operates in financial services activity through its subsidiary "Payshop" and by the parent company, however some changes were made with the creation of the Banco CTT.

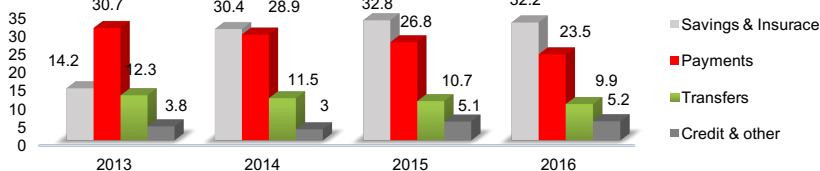
Previous to CTT entrance in the banking sector, this segment provided essentially Savings & Insurance, Payments (mainly government services and electronic payments through Payshop), Transfers and Credit. While, after the creation of Banco CTT, some part of both credit and insurance have migrated to the bank on CTT branches with the presence of Banco CTT. In summary, in terms of FS revenues it has increased almost 10M€ (+16%) since 2012 to 2016, conducted by Savings & Insurance products (graph 22). The improvement was also verified in terms of EBITDA margin, increasing the percentage from 41.0% in 2012 to 53.4% in 2016 (graph 23).

Graph 23 – Financial Services EBITDA margin per year (2012-9M2017).



Source: CTT Annual report.

Graph 22 - Financial services' revenues by product in million euros.

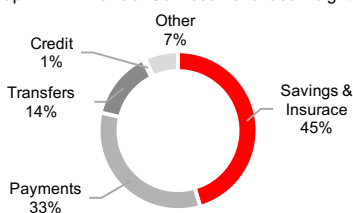


Source: CTT Annual report.

“Payshop” operates through a large retail network of multiple partnerships across the country with more than 4300 external agents, allowing CTT to have a high presence in the territory. This service is remunerated to agents by their sales, meaning that if the volume of payments is going down, the EBITDA can go down in line with that decrease. Moreover, Payshop also has synergies with CTT Expresso by increasing the number of pick-up using part of this network.

This segment highlights the CTT’s ability to benefit from its large retail network by providing a wide range of products and partnerships. These partnerships regard some companies, such as Fidelidade, Mapfre, IGCP, Estradas de Portugal and Western Union that are expected to be maintained. The biggest partnership taking place regards IGCP, which pays a fee on the placement of treasury certificates and savings. Previously the fee regarded the stock’s value of treasury certificates, although with this change, the revenue level should maintain equal to the previous scheme and becoming smoother along the year. While in Western Union partnership, revenues come from commissions on sales and on commission on exchange rates paid by the customers. Regarding Money Orders, CTT follows a different approach, operating by itself without any partnership.

Graph 24 – Financial Services' revenues weight.



Source: CTT Annual report.

In 2016, this segment generated the highest EBITDA margin of the group and accounted for 10% of the total revenues. The most relevant product traded in this segment was savings, accounting 45% of the total revenues in 2016 in this segment (graph 24), essentially through public debt certificates (50%), which were exclusively provided in CTT branches until the beginning of November 2017.

Banco CTT

CTT have approved the decision to create Banco CTT in the 4th of November of 2014 - few months after the privatization process - and began its activity one year later. Therefore, the weight on revenues is still very low.

The postal bank was primarily designed to capture low-income and middle-aged customers, however, after two years of operation, the reality was different, counting with more young clients than expected. It has created the need to rethink the bank, with higher investment on digital channels and deciding to not open 400 more shops as it was planned. Currently Banco CTT counts with 203 open branches.

Consumer credit and credit cards are provided in partnership with Cetelem...

Banco CTT obeys to “simplicity, trust, proximity, efficiency and strength” principles, implying a small portfolio of products, such as deposits, current accounts (with zero commission), mortgage loans, insurance contracts and credit cards and loans in partnership with Cetelem, which is owned by BNP Paribas.

Currently the main bank’s asset regards financial assets & investments account, as credit is being introduced, amounting to 308.7 million euros in the 3Q 2017, while in the liabilities’ side the bank accounts to 199 million in term deposits and 341 million euros in sight deposits. In terms of the equity ratio, the Tier 1 capital ratio corresponds to 35% in 2016, which is currently much higher than the target (15%), once riskier assets are being progressively introduced.

Valuation

Based on the valuation performed in this report, the price target forecasted over a 12-month period for CTT – Correios de Portugal, S.A. is 4.65€, representing as of 29th December of 2017 (3.64€) a total shareholder return of 34.3%. Therefore, it is recommended a BUY position on CTT.

As previously discussed, the share price has decreased a lot after the 3Q2017 results disclosure, where CTT announced a bad result on cost management and a cut on dividends to be paid in 2018. These effects, mainly how CTT will deal with cost performance, influences a lot the price target, as it will be discussed below. Also the performance of the mail’s volume affects a lot the 18Y CTT’s price target.

Metodology

Table 3 – Model per segment.

Segment	Cash Flow	Discount rate
Core	FCF	WACC
CS	FCF	WACC
Banco CTT	FTE	Cost of Equity

In order to value group CTT, the method sum of the parts was used (table 3), being composed by the following 3 parts:

- Mail, Express & Parcels, Financial Services – core segment.
- CTT central structure and intragroup eliminations – “CS”.
- Banco CTT.

The core segment and the CTT central structure and intra-group eliminations followed a discounted cash flow valuation (DCF), both discounted by a specific weighted average cost of capital (WACC). In turn, the valuation of Banco CTT, as it is a financial institutional, consists on a free cash flow to equity (FCFE), which is discounted by its cost of equity, rather than WACC.

The forecasted period considered was 7 years (2017-2023) of explicit forecasting for the core segment and for the CS and 9 years for Banco CTT (2017-2025), since the bank is recent and takes more time to stabilize its cash flows. After those periods, a terminal value was considered with respective growth rates for each segment.

Restructuring plan

An increasingly faster negative growth on mail affected largely the CTT’s structure, shrinking the mail’s EBITDA on the last two years, being particularly evident in 9M 2017, and also on the E&P side, with a negative margin of 1.5% in 9M2017. Therefore, CTT announced on 19th December 2017, a restructuring plan with 4 levels: 1) Adjust HR policies (e.g. cuts on top management salaries) and external supplies and services cost; 2) Rationalize non-core assets (6-7 EBITDA impact up to 2020) and HR optimization (e.g. -140 employees have already left the company from ~200 up to early 2018 or potentially ~800 up to 2020); 3) Optimize the retail network (through the conversion of post offices into postal agencies or by closing post offices); 4) Reengineer the distribution network (e.g. 25m of incremental CAPEX).

Given the uncertainty around some parts of the restructuring plan, as well as its dependence on the change of Mail’s volume, only the main points on the 1st, 2nd and 4th level were included in this valuation.

Mail, Express & Parcels and Financial Services

The following segments Mail, Express & Parcels and Financial Services share the same retail network, becoming difficult to allocate assets/liabilities and costs for each segment. Therefore, in order to solve that issue and to simplify the three segments were valued together.

As seen, the volume on Mail has been declining. This effect can be mitigated by an increase in prices, which under the scope of USO are regulated by ANACOM.

However, there is a differentiation on declining rates of Mail products (transactional, editorial, advertising and unaddressed). The estimated rates for 2017 onwards are based on the expected rate for 2017 taking into account the performance of each segment this year (table 4).

Therefore, the Mail's revenues were forecasted based on the growth of each volume' product weighted by their volume in the total (table 5) and considering an increase in prices of 1.5% YoY, which is in the range allowed by ANACOM for price increases. The forecasted mail growth takes into account the historic trend and the macroeconomic scenario, emphasizing the good macroeconomic development. Consequently, the Mail's volume forecasted declines around 3.48% (CAGR).

Table 4 – 9months volume growth.

9M mail volume	17	16	Δ%
Transactional	475	505	-5.9
Editorial	31	32	-3.8
Advertising	49	55	-9.5
Unaddressed	368	361	1.9

Source: CTT 3Q 2017 report.

Table 5 – Mail volume growth.

Mail volume growth	2 014	2 015	2 016	2017 onwards
Total mail growth	-5.1%	-4.5%	-0.8%	-3.5%
Transactional	-5.1%	-4.1%	-3.7%	-6.0%
Editorial	-3.4%	-2.9%	-6.3%	-4.5%
Advertising	-12.5%	5.9%	-7.5%	-9.0%
Unaddressed	-4.0%	-6.8%	5.2%	0.0%

Source: CTT annual report; Own estimations.

As for the cost side of the Mail (table 6) was considered a slight increase proportion of the Mail revenues between 2017 and 2019, in line with the 2017 results. However, in the following years a better proportion was assumed, since as in the restructuring plan CTT aims to invest on more efficient machineries (incremental CAPEX of 25M€ in 2019).

Table 6 – Mail external supplies and services.

External supplies and services mail	2013	2014	2015	2016	2017-2019	2020 onwards
In % of mail revenues	20.5%	19.9%	19.2%	19.5%	20.0%	19.2%
Absolute value in thousand euros	(108 467)	(104 979)	(103 439)	(100 939)	(100 853) ⁹	(91 238) ⁹

Source: CTT annual report; Own estimations.

⁹ Value only for 2017 and 2020, respectively.

Contrary to the trend on mail, Express & Parcels seems to follow a growing tendency pursued by e-commerce, both on domestic and cross-border context. In order to forecast its revenues, only the volume of Portugal and Spain was taken into account, as the volume in Mozambique is less than 1% of the total, not being materially significant.

Therefore, the growth volume in Portugal was considered to be around 3% in 2018 onwards and in Spain around 4%, except in 2017 in Spain due to the partnership with Amazon, that leads to a faster increase in the number of deliveries and in Portugal due to the contribution of the new recent acquisition of Transporta (table 7). Then, it was calculated an average of prices per parcel from the last year and applied to the number of items forecasted until 2023, assuming also an increase in prices of 1.5% YoY.

Table 7 – Express & Parcels volume growth.

E&P volume growth	2 014	2 015	2 016	2 017	2018 onwards
E&P Portugal	14%	4%	1%	6%	3%
E&P Spain	5%	2%	-12%	8%	4%

Source: CTT annual report; Own estimates.

The costs in this segment were forecasted considering that in 2017 the percentage is higher than in previous years due to the unexpected increase in demand (as the 3Q revenues on Express use to underperform the remaining quarters) for which the structure was not prepared recurring to outsource services. With the progressive inclusion of this segment in the mail structure these costs are predicted to stabilize around previous years' values (table 8).

Table 8 – Express & Parcels - External supplies and services

External supplies and services E&P	2013	2014	2015	2016	2017	2018 onwards
in % of E&P revenues	74%	75%	76%	77%	80%	77%

Source: CTT annual report; Own estimates.

Regarding the financial services segment, as said no partnership is expected to expire, therefore the revenues were forecasted based on the revenue growth of each product (savings & insurance, payments, transfers and credit & other). A negative trend is expected in this segment, driven by a decrease in payments and transfers (table 9), while savings & insurance follow a positive trend. Credit & other is expected to maintain the same level¹⁰, since part of the credit has already transferred to the Banco CTT's balance sheet. In particular, the savings and insurance's revenues was forecasted on a deaccelerated growth, since the individuals are now investing more in savings certificates, once it pays more interest than other safe applications. This incentive is expected to lessen due to the

Savings certificates is paying more interest than other similar applications...

¹⁰ Excluding non-recurring income, such as from Altice and also VAT deductions.

predicted growth in the interest rate of deposits driven by the increase of EURIBOR and also by a decrease in interest rates given on new certificates issued by the national government.

Table 9 – Financial services products revenues.

<i>FS revenue growth</i>	2014	2 015	2 016	2 017	2 018	2019	2020	2020 onwards
Savings & Insurance	114%	8%	-2%	2,0%	1,0%	0,5%	-0.5%	-1%
Payments	-6%	-7%	-12%	-10%	-8%	-8%	-8%	-8%
Transfers	-7%	-7%	-7%	-4%	-6%	-6%	-6%	-6%
Credit & other	-21%	70%	2%	0%	0%	0%	0%	0%

Source: CTT annual report; Own estimates.

Considering costs, a high decrease happened from 2015 to 2016, this trend continued during the second half of 2017. Since this segment is essentially driven by partnerships the forecasted proportion remains the same for 2017 onwards (table 10) with the underlying belief that CTT will be able to withstand the same conditions with its partners.

Table 10 – Financial Services - External supplies and services

External supplies and services financial services	2013	2014	2015	2016	2017 onwards
In % of FS revenues	18%	18%	20%	14%	14%

Source: CTT annual report; Own estimates.

The growth rate of FCF on this part is 0%, since the volume of Mail and Financial Services is decreasing, not mitigated by the increase in Express & Parcels.

▪ Weighted Average Cost of Capital (WACC)

The weighted average cost of capital should reflect both the cost of equity and debt and its level of leverage. Regarding the cost of equity, a set of peers was used, which were companies operating in both segments or at least in one of them, since there is no group of peers listed operating only in this 3 segments. The group of peers is composed by: Post NL, Royal Mail, Osterreichische Post, Bpost, Deutsche Post and CTT (appendix 4).

For each peer was identified its unlevered beta given an average unlevered beta, levered by CTT debt-to-equity level, which is 6%, and a effective tax rate of 29.5%, leading to a levered beta of 0.61.

Consequently, the cost of equity is 6.49%, resulting from the risk-free rate, considered the average of the Portuguese sovereign debt on the last 24months, which is 3.12%, as it includes the country risk, and the market risk premium, which

Table 11 – WACC of the core segment.

WACC	6.29%
Cost of Debt after-tax	2.70%
Cost of Equity	6.49%
D/E	0.06
Rd (after tax) 2.70%	
Cost of debt	3.83%
Statutory tax rate	29.5%
Re 6.49%	
Risk-free rate	3.12%
Relevered beta	0.61
Market Risk premium	5.50%

Source: CTT annual report. Bloomberg.

is 5.5%¹¹. On the other hand, as there is no debt traded, the debt cost was assumed to be the interest expense on debt, which is 3.83% before taxes. Assuming those values and a debt to equity ratio equal to 6%, the WACC for this segment is 6.29% (table 11).

The valuation of the core segment is summarized in the following figure.

Figure 4 - EV to Equity in million euros in mail, express and parcels and financial services.



Source: Own estimations.

Central Structure and eliminations

This segment should consider costs shared by the whole group and internal revenues and costs projected by the other segments, since it should be eliminated because it does not impact in the net profit of the company.

Regarding the restructuring plan announced in December, a cut on the payments of salaries of the top management was announced and considered in this report, having a positive impact in EBITDA by almost 6M€ up to 2019. This plan also aims to seize the opportunity of a good phase on the real state market in Portugal to sell some non-core assets, gaining 6-7M€ up to 2020.

No structural change is expected in this segment, therefore the growth on the terminal value assumed was 0%.

- **Weighted Average Cost of Capital (WACC)**

As the company's beta results from the weighted average of its segment's betas with the equity of each segment in the total, the beta of Central Structure and eliminations were calculated in the reverse order. A company's levered beta of 0.78 was considered, implying a beta of 0.29 (as the CS Equity is negative), reflecting less volatility than the market. Applying the same risk-free and market risk premium, the cost of equity and consequently WACC - as there is no debt - is 4.72% (table 12).

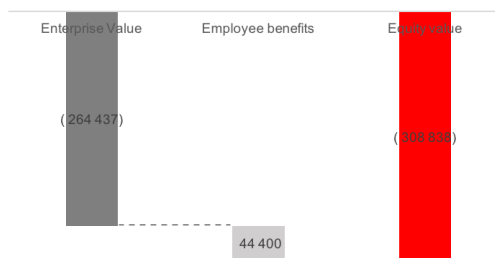
Table 12 – WACC of the central structure.

WACC	4.72%
Cost of Equity	4.72%
D/E	0%
Re 4.72%	
Risk-free rate	3.12%
Levered beta	0.29
Market Risk premium	5.50%

Source: CTT annual report. Bloomberg.

¹¹ According to "Equity Market Risk Premium – Research Summary 2017" by KPMG.

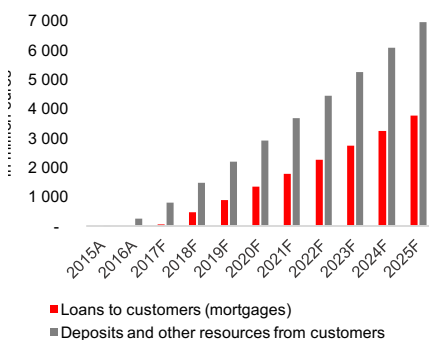
Figure 5 - EV to Equity in million euros in central structure and eliminations



Source: Own estimations.

Banco CTT

Graph 25 – Banco CTT’s Deposits and Loans – 2015-2025F.



Source: Own estimations.

Given the few years of bank activity, the main challenge was to forecast the deposits of clients and the loans given to them (graph 25), for instance, in the case of mortgage loans the bank only started issuing them this year. With the positive perspective in the GDP growth, the national deposits¹² and loans were forecasted in line with these growths, assuming it covers both new production and amortization in the loan case. Then, to compute the market share captured by Banco CTT a gradual growth was applied so that the value at 2025 was 3.25% for mortgage loans and 3.5% for deposits, which is in line with CTT’s objective. At the same time was considered the value of loan-to-deposit ratio to be around of 50% (that also considers overdrafts and factoring, and not credit loans nor credit cars, once it is not an asset/liability of Banco CTT), this value is also the target defined by CTT.

The interest rates on mortgage loans were computed through the estimations on EURIBOR and the average spread practiced today by Banco CTT. The EURIBOR is predicted to grow, reaching a positive value in 2020 whereas the spread is predicted to remain stable, up to 2020.

Another important driver is the partnership with Cetelem on credit cards & loans, since now the bank has higher visibility and a wider range of clients. The forecasting procedure was the same as in mortgages loans.

Regarding the sustainability of Banco CTT, a common equity tier 1 ratio was considered to be 15%, being strictly above their required minimum.

Finally, the assumption on the growth rate was 1.92%, the growth rate of Portuguese GDP in the period that the terminal value begins.

- Cost of equity

As there is no direct postal bank peers listed, the peers chosen were: Poste Italiane (86% of its revenues are from financial and insurance services), Unipol

¹² Data from Bank of Portugal website.

Table 13 – Banco CTT's cost of equity.

Re	8.74%
Risk-free rate	3.12%
Levered beta	1.02
Market Risk premium	5.50%

Source: Bloomberg.

Gruppo SpA and Grupo Catalana Occidente SA (insurance companies). After selecting the peers, their returns were regressed on SXXE Index, which represents companies of 12 Eurozone countries, resulting on an average levered beta of 1.02. Applying the same risk-free rate and the market risk-premium rate as on the other segments, the cost of equity of the bank is 8.74% (table 13).

Sensitivity analysis

A sensitivity analysis was performed in this report to understand the behaviour of the share price from changes on the main drivers of the most uncertainty segment - Mail and Banco CTT. Therefore, in the case of Mail was assumed a range of negative growths, from -5% to 0%, growing each year the same percentage, while in the base valuation this value corresponded to -3.5%. On the other hand, in the Banco CTT's case, the driver chosen was the market share on mortgages loans, since it is the main source of bank's revenues and effects all the bank's structure. The market share on loans is considered to vary between 2.75% and 3.50%, which in the base case is 3.25%. From this analysis (table 14) it is possible to conclude that mail growth level influences much more the valuation than the level of mortgages loans. Moreover, if Banco CTT only captures 2.75% of market share on mortgages loans in 2025, this segment is destroying equity value (-21M€).

The key insight derived from this analysis is that a stronger growth in Banco CTT will not be able to compensate for a worse performance in the Mail segment. This means that if the decrease in Mail worsens, Banco CTT will not be able to replace its value.

Table 14 – Sensitivity analysis between mail growth and mortgages loans.

Mail ¹⁴	Loans ¹³	2.75%	3.00%	3.25%	3.50%
	-5.0%		€ 1.82	€ 2.03	€ 2.23
-4.0%		€ 3.39	€ 3.59	€ 3.80	€ 4.00
-3.5%		€ 4.24	€ 4.45	€ 4.65	€ 4.85
-3.0%		€ 5.05	€ 5.26	€ 5.46	€ 5.66
-2.5%		€ 5.92	€ 6.12	€ 6.32	€ 6.53
-2.0%		€ 6.81	€ 7.01	€ 7.22	€ 7.42
-1.5%		€ 7.73	€ 7.93	€ 8.13	€ 8.33
-1.0%		€ 8.67	€ 8.88	€ 9.08	€ 9.28
-0.5%		€ 9.64	€ 9.85	€ 10.05	€ 10.25
0.0%		€ 10.64	€ 10.84	€ 11.05	€ 11.25

Source: Own estimations.

¹³ Market share of mortgages loans in Portugal.

¹⁴ Mail growth CAGR

It is also important to note that if the interest on financial investments of the bank does not follow the same trend of the EURIBOR, Banco CTT is destroying value from group CTT. In that situation, it would be preferable to sell this business unit. However, this scenario was not predicted in this report.

Also a sensitivity analysis was performed to analyse the relation between Mail volume' growth and a better operational efficiency in the Express & Parcels segment. For that purpose, there was assumed a smaller percentage on the external supplies and services costs, that implies a better EBITDA margin on this segment. Therefore, when compared with a better EBITDA margin on Express & Parcels segment, a worse performance in the Mail volume will not be completely compensated by a better cost control on the Express & Parcels segment (table 15).

Given these two analyses, the growth on Mail's volume has a strict impact on CTT's equity valuation.

Table 15 – Sensitivity analysis between mail growth and E&P costs in percentage of revenues. Source: Analyst's estimates.

Mail ¹⁶ \ E&P ¹⁵	71%	73%	75%	77%	79%
-5.0%	€ 2.80	€ 2.61	€ 2.42	€ 2.23	€ 2.04
-4.0%	€ 4.37	€ 4.18	€ 3.99	€ 3.80	€ 3.61
-3.5%	€ 5.22	€ 5.03	€ 4.84	€ 4.65	€ 4.46
-3.0%	€ 6.03	€ 5.84	€ 5.65	€ 5.46	€ 5.27
-2.5%	€ 6.90	€ 6.71	€ 6.51	€ 6.32	€ 6.13
-2.0%	€ 7.79	€ 7.60	€ 7.41	€ 7.22	€ 7.03
-1.5%	€ 8.71	€ 8.51	€ 8.32	€ 8.13	€ 7.94
-1.0%	€ 9.65	€ 9.46	€ 9.27	€ 9.08	€ 8.89
-0.5%	€ 10.62	€ 10.43	€ 10.24	€ 10.05	€ 9.86
0.0%	€ 11.62	€ 11.43	€ 11.24	€ 11.05	€ 10.85

Source: Own estimations.

Multiple Valuation

Table 16 – EV to EBITDA, Price to Book and Price to Earnings in 2018 among CTT's peers.

	EV/EBITDA A 2018	P/B 2018	P/E 2018
CTT	3,63	2,75	13,39
Royal Mail	5,64	1,03	11,46
Osterreichische Post	7,67	3,71	15,38
Post NL	4,90	17,57	8,84
Bpost	7,36	5,46	14,70
Deutsche Post	9,38	3,55	16,18
Avg	6,43	5,68	13,32
Avg excluding outliers	-	3,30	-

Source: Bloomberg.

After analysing and valuating in detail CTT, a relative valuation was performed. A group of core peers was selected (CTT, Royal Mail, Osterreichische Post, Post NL, Bpost, Deutsche Post) for the following multiple ratios: EV/EBITDA, P/B and P/E for the next twelve months (table 16). From those multiples, except for CTT's P/E which is in line, CTT is relatively under valued, both regarding enterprise value and equity value. This difference may be due to the exposure to the Portuguese market, which entails a higher risk than the other peer's markets, and due to the CTT negative 3Q2017 results, which was not predicted by investors and also leads to a higher uncertainty level and lack of confidence in CTT.

¹⁵ Annual percentage the external supplies and services costs of Express & Parcels segment.

¹⁶ Mail growth CAGR.

Financial Statements

Table 16 – Banco CTT Balance Sheet in thousand euros.

	2015A	2016A	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Cash	30	18 141	79 053	148 491	219 682	292 576	367 425	444 657	524 815	608 364	695 850
Deposits with banks	1 458	106 374	234 023	280 827	308 910	339 801	373 781	411 159	452 275	497 503	547 253
Financial Investment	130	101 542	284 317	341 181	409 417	491 300	589 560	707 472	848 967	1 018 760	1 222 512
Investment in credit institutions	17 902	58 718	91 013	92 548	93 866	95 108	96 383	97 769	99 323	101 060	103 002
Advances to customers	-	7 104	22 115	41 539	61 454	81 846	102 784	124 389	146 813	170 185	194 658
Loans to customers (mortgages)	-	-	51 200	468 568	897 684	1 337 586	1 789 280	2 255 021	2 737 858	3 240 561	3 766 372
Property and equipment	61	60	260	460	660	860	1 060	1 260	1 460	1 660	1 860
Intangible assets	9 717	18 456	22 456	23 456	24 456	25 456	26 456	27 456	28 456	29 456	30 456
Deferred income tax assets	-	42	341	280	118	-	-	-	-	-	-
Other assets	1 816	8 198	20 494	24 593	27 052	29 757	32 733	36 006	39 607	43 567	47 924
Financial assets	-	-	82 812	177 261	273 479	384 381	481 725	563 451	627 024	668 888	684 734
TOTAL ASSETS	31 115	318 634	888 083	1 599 203	2 316 778	3 078 672	3 861 187	4 668 641	5 506 597	6 380 004	7 294 620
Deposits	52	253 945	790 532	1 484 908	2 196 817	2 925 765	3 674 252	4 446 575	5 248 151	6 083 638	6 958 496
Provisions	-	21	73	510	959	1 419	1 892	2 379	2 885	3 411	3 961
Other liabilities	2 984	7 014	16 084	19 301	21 231	21 512	21 800	22 114	22 465	22 858	23 297
Deferred tax liability	-	-	-	-	-	52	296	551	710	853	1 024
Bonds Issued	-	-	-	-	-	-	-	-	-	-	-
TOTAL LIABILITIES	3 036	260 980	806 690	1 504 719	2 219 007	2 948 748	3 698 240	4 471 619	5 274 211	6 110 759	6 986 778
TOTAL EQUITY	28 079	57 654	81 393	94 484	97 771	129 924	162 947	197 023	232 385	269 244	307 842
TOTAL EQUITY AND LIABILITIES	31 115	318 634	888 083	1 599 203	2 316 778	3 078 672	3 861 187	4 668 641	5 506 597	6 380 004	7 294 620

Source: CTT annual report; Own estimations.

Table 17 – Banco CTT Income Statement in thousands of euros.

	2015A	2016A	2017F	2018F	2019F	2020F	2021F	2022F	2023F	2024F	2025F
Interest and similar income	18	416	2 401	11 636	22 091	40 272	64 613	90 818	111 799	132 938	155 524
Interest on financial investments	0	322	1 164	1 696	2 302	5 579	10 039	12 036	13 979	15 983	18 063
Interest on deposits and investments at credit institutions	18	65	127	146	198	1 519	3 052	4 831	5 291	5 801	6 367
Interest on advances to customers	-	29	96	188	291	403	527	663	812	975	1 154
Interest on loans to customers	-	-	1 014	9 606	19 300	32 771	50 994	73 288	91 718	110 179	129 940
Interest and similar expense	-	390	1 214	3 405	6 701	11 140	16 773	23 666	31 907	41 594	52 846
Interest on deposits from customers	-	386	1 202	3 372	6 636	11 032	16 610	23 436	31 597	41 190	52 333
Others	-	4	12	33	65	108	163	230	310	404	513
Net Interest income	18	26	1 187	8 231	15 390	29 131	47 840	67 152	79 892	91 344	102 678
Net fees and commission income / (expense)	(23)	421	5 687	8 447	11 343	14 735	18 352	22 231	26 413	30 942	35 867
Net gains/(losses) arising from available for FA ¹⁷	-	12	42	60	78	101	123	146	170	194	219
Other operating income and expense	(54)	164	161	301	444	590	740	894	1 055	1 222	1 397
Operating income	(58)	624	7 078	17 038	27 255	44 556	67 054	90 423	107 530	123 702	140 162
Staff costs	(2 252)	(9 626)	(11 102)	(11 712)	(12 322)	(12 932)	(13 542)	(14 152)	(14 762)	(15 372)	(15 982)
General and administrative expenses	(5 066)	(16 439)	(16 439)	(16 439)	(10 000)	(10 000)	(10 000)	(10 000)	(10 000)	(10 000)	(10 000)
Depreciation and amortization	(137)	(1 542)	(1 852)	(2 272)	(2 392)	(2 512)	(2 632)	(2 752)	(2 872)	(2 992)	(3 112)
Loans impairment	-	(0)	(733)	(5 101)	(9 591)	(14 194)	(18 921)	(23 794)	(28 847)	(34 107)	(37 664)
Other provisions	-	(21)	(73)	(510)	(959)	(1 419)	(1 892)	(2 379)	(2 885)	(3 411)	(3 961)
Operating expenses	(7 455)	(27 628)	(30 199)	(36 034)	(35 264)	(41 057)	(46 986)	(53 077)	(59 365)	(65 882)	(70 718)
Profit/loss before income tax (EBIT)	(7 514)	(27 005)	(23 121)	(18 995)	(8 009)	3 499	20 068	37 346	48 165	57 821	69 443
Income tax expense	2 232	7 861	6 821	5 604	2 363	(1 032)	(5 920)	(11 017)	(14 209)	(17 057)	(20 486)
Net profit / (loss) for the period	(5 282)	(19 143)	(16 300)	(13 392)	(5 646)	2 467	14 148	26 329	33 956	40 763	48 957

Source: CTT annual report; Own estimations.

¹⁷ FA = Financial Investments.

Table 18 – CTT consolidated Balance Sheet in thousands of euros.

	2013A	2014A	2015A	2016A	2017F	2018F	2019F	2020F	2021F	2022F	2023F
Cash and cash equivalents	544 876	664 570	603 650	618 811	830 934	937 801	1 008 024	1 107 206	1 210 047	1 318 876	1 434 574
Accounts receivable	135 590	131 682	124 356	122 113	123 400	122 467	121 158	119 882	118 669	117 545	116 509
Inventories	5 994	5 785	5 455	5 408	5 808	5 785	5 820	5 760	5 804	5 854	5 909
Others	21 978	28 478	49 008	114 329	295 178	831 848	1 380 593	1 955 452	2 529 419	3 102 911	3 676 679
Current assets	708 437	830 516	782 468	860 661	1 255 320	1 897 900	2 515 595	3 188 300	3 863 939	4 545 187	5 233 671
LT Investments	47 687	32 369	29 334	120 334	303 146	360 046	428 320	510 241	608 540	726 492	868 027
Net fixed assets	238 414	225 892	237 565	247 839	244 556	244 506	269 442	269 388	269 345	269 314	269 296
Others	105 596	92 220	88 137	87 527	90 123	89 379	88 264	87 218	86 334	85 515	84 759
Total assets	1 100 134	1 180 997	1 137 505	1 316 361	1 893 145	2 591 831	3 301 621	4 055 147	4 828 158	5 626 507	6 455 753
Liabilities											
ST loans	3 717	1 846	7 078	9 680	9 680	9 680	9 680	9 680	9 680	9 680	9 680
Payables	391 958	499 537	435 892	445 239	448 661	445 208	445 584	440 941	439 586	438 439	437 497
Others	112 382	139 931	169 242	348 660	895 857	1 589 753	2 301 853	3 030 835	3 779 212	4 551 462	5 353 002
Total current liabilities	508 056	641 314	612 212	803 579	1 354 198	2 044 640	2 757 117	3 481 455	4 228 477	4 999 581	5 800 179
LT debt	3 282	1 913	1 036	127	127	127	127	127	127	127	127
Other liabilities	312 862	288 560	272 422	279 328	281 704	276 857	270 884	267 918	260 883	254 055	247 339
Total liabilities	824 200	931 787	885 670	1 083 034	1 636 029	2 321 625	3 028 127	3 749 500	4 489 488	5 253 762	6 047 645
Shareholders' equity	275 934	249 210	251 835	233 327	257 116	270 206	273 494	305 646	338 670	372 745	408 108

Source: CTT annual report; Own estimations.

Table 19 – CTT consolidated Income Statement in thousands of euros.

	2013A	2014A	2015A	2016A	2017F	2018F	2019F	2020F	2021F	2022F	2023F
Operating revenues	704 847	718 774	727 120	696 483	691 283	695 262	697 166	706 142	720 456	735 938	745 434
Mail	546 085	546 258	554 717	533 670	520 451	510 078	499 865	489 860	480 063	470 473	461 088
E&P	129 521	129 013	131 256	120 810	128 268	135 204	139 795	144 546	149 463	154 552	159 819
FS	60 778	74 830	75 235	70 678	65 147	63 187	61 237	59 114	56 974	54 972	53 100
Banco CTT	-	-	(58)	624	7 078	17 038	27 255	44 556	67 054	90 423	107 530
CS	(31 537)	(31 325)	(34 030)	(29 298)	(29 661)	(30 246)	(30 986)	(31 935)	(33 097)	(34 483)	(36 101)
Operating expenses	(582 718)	(523 132)	(592 532)	(594 431)	(605 297)	(602 289)	(594 984)	(596 278)	(596 116)	(596 321)	(596 900)
Mail, E&P, FS	(507 878)	(505 383)	(514 339)	(491 088)	(505 984)	(502 026)	(500 118)	(494 800)	(493 352)	(492 140)	(491 166)
CS	(74 840)	(17 750)	(70 874)	(77 277)	(71 772)	(72 112)	(72 543)	(78 546)	(79 222)	(80 029)	(80 972)
Banco CTT	-	-	(7 318)	(26 065)	(27 541)	(28 151)	(22 322)	(22 932)	(23 542)	(24 152)	(24 762)
EBITDA	122 129	195 642	134 588	102 053	85 986	92 974	102 182	109 864	124 340	139 617	148 534
Dep/Amort	(25 715)	(21 406)	(23 573)	(27 468)	(28 035)	(27 697)	(30 172)	(30 156)	(30 141)	(30 129)	(30 118)
Impairment of accounts receivable, net	(3 530)	(5 877)	(1 430)	(46)	(46)	(46)	(45)	(45)	(44)	(44)	(44)
Impairment of non-depreciable assets	0	(18 932)	623	0	0	0	0	0	0	0	0
Provisions, net	(5 648)	(14 010)	(277)	16 344	(779)	(1 251)	(1 694)	(2 155)	(2 620)	(3 105)	(3 608)
Loans impairment	-	-	-	(0)	(733)	(5 101)	(9 591)	(14 194)	(18 921)	(23 794)	(28 847)
EBIT	87 236	135 418	109 930	90 882	56 393	58 879	60 680	63 314	72 614	82 545	85 917
Interest expense	(11 874)	(11 798)	(6 861)	(6 540)	(7 463)	(7 185)	(6 913)	(6 646)	(6 384)	(6 127)	(5 875)
Interest income	7 872	4 325	1 485	672	1 832	1 883	1 846	1 726	1 688	1 665	1 643
Gains/losses in associated companies	21	54	54	230	120	122	125	127	130	132	135
Non recurrent income or expenses	-	-	-	-	6 200	600	600	600	-	-	-
Earnings before taxes	83 253	127 999	104 608	85 244	57 082	54 300	56 337	59 121	68 047	78 215	81 820
Income tax for the period	(20 909)	(56 259)	(33 143)	(23 959)	(20 377)	(18 146)	(18 071)	(18 877)	(21 340)	(24 248)	(25 225)
Net Profit	62 344	71 739	71 465	61 285	36 706	36 154	38 266	40 244	46 708	53 967	56 595

Source: CTT annual report; Own estimations.

Appendix

Appendix 1 – CTT subsidiaries

Subsidiaries	Place of business
CTT Expresso – Serviços Postais e Logística. S.A. (“CTT Expresso”)	Portugal
Payshop Portugal. S.A. (“Payshop”)	Portugal
CTT Contacto. S.A. (“CTT Con”)	Portugal
Mailtec Comunicação. S.A. (“Mailtec Ti”)	Portugal
Tourline express Mensejaría. SL.U. (“TourLine”)	Spain
Correios Expresso de Moçambique. S.A. (“CORRE”)	Mozambique
Escrita Inteligente. S.A. (“RONL”)	Portugal
Transporta – Transportes Porta a Porta. S.A. (“Transporta”)	Portugal
Banco CTT. S.A. (“Banco CTT”)	Portugal

Appendix 2 – Shareholders’ structure

Shareholders	Share capital
Gestmin. SGPS. S.A.	11.26%
Wilmington Capital. S.L.	5.00%
Credit Suisse Group AG	3.31%
Norges Bank	3.15%
BNP Paribas Asset Management. S.A.	3.10%
Wellington Management Group LLP	2.07%
The Goldman Sachs Group, Inc.	2.07%
Kairos Partners SGR SpA	2.05%
Remaining shareholders	67.99%

Appendix 3 – Express postal traffic market share in 2Q15

Express postal traffic market share in Portugal	2Q15
CTT Expresso	34.8%
Chronopost	23.7%
Urbanos	7.0%
General Logistics Systems	5.9%
Group Adicional	5.1%
Group SEUR	4.9%
Group Nacex	4.2%
TNT express	3.8%
TCI	2.9%
Group Rangel	2.1%
UPS	2.1%
Vasp Premium	1.7%
Group MRW	1.1%
Other providers	0.8%

Appendix 4 – Peers' unlevered beta

Peers	Unlevered beta
CTT PL Equity (CTT)	0.75
PNL NA Equity (Post NL)	0.81
RMG LN Equity (Royal Mail)	0.36
POST AV Equity (Osterreichische Post)	0.37
DPW GR Equity (Deutsche Post)	0.69
BPOST BB Equity (Bpost)	0.56
Average	0.59

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Report Recommendations

Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

This report was prepared by Joana de Sousa Torres, a Master in Finance's student of Nova School of Business & Economics ("Nova SBE"), within the context of the Field Lab – Equity Research.

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