Valuation of PT and Oi in the merger context

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Dissertation submitted in partial fulfillment of requirements for the degree of MSc in Finance, at Universidade Nova de Lisboa

OCTOBER 2015

Table of Contents

List of Figures

List of Abbreviations

APV	Adjusted Present Value
BRL	Brazilian Real
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
Contax	Contax Participações S.A.
CorpCo	Entity resulting from merger between PT, Oi and Oi Holding Companies
DCF	Discounted Cash Flow
EBIT	Earnings before Interest and Taxes
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EV	Enterprise Value
EVCA	European Venture Capital Association
FTE	Flow to Equity
MoU	Memorandum of Understanding signed between PT, Oi and Oi Holding Companies
Oi	Oi, S.A.
Oi Holding	LF Telecom, AG Telecom and Tpart
OPEX	Operational Expenditures
PT	Portugal Telecom SGPS S.A.
PT Assets	All assets and liabilities of PT with exception of stakes directly or indirectly held on Oi and Contax
TPart	Telemar Participações SA
WACC	Weight Average Cost of Capital

1. Introduction

On October 2nd , 2013, a memorandum of understanding ("MOU") was signed between PT and other Oi's key shareholders setting out the basis for a merger between PT, Oi and Oi's several holding companies into a single Brazilian incorporated listed entity ("CorpCo"). This merger was announced as the natural evolution of the industrial alliance established in 2010 between the two companies. Transaction closing was expected to occur during the first semester of 2014.

The rationale underlying the merger is the simplification of shareholder and governance structures, as a way to benefit further from compelling growth prospects in Brazil and to increase the overall efficiency level of infra-structure and resources owned, by enhancing the transfer of know-how and expertise and application of best practices. Analysts see this transaction as pre-emptive move to better position Oi on future consolidation opportunities arising in South America, namely in Brazil.

This merger, which relied on cash and in-kind capital increases in Oi, intended to create a new entity – CorpCo – with revenues of Euro 11.6 billion, EBITDA of Euro 4.2 billion and an Operating Cash Flow of Euro 1.6 billion (based on PT and Oi 2012 financials). The net present value of synergies (pre-tax) that should be generated through the merger were quantified in BRL 5.5 billion (circa Euro 1.8 billion) by PT and Oi, of which 60% are operational and the remaining 40% are financial.

In the context of the merger between PT and Oi, the objectives of this Work Project are the following: i) assess the accuracy of the value proposed for what was designated as "PT Assets", e.g., all PT's assets and liabilities with exclusion of stakes held in Oi and in Contax; ii) analyze if the merger was neutral, beneficial or prejudicial to PT's shareholders, considering Oi's market capitalization at merger announcement date and exchange terms proposed. To accomplish this Work Project's goals, valuation exercises of PT Assets and Oi were developed, considering information available at the time of the announcement (end of 2013).

This document is organized in four sections. The first and second sections briefly describe the merger process, the companies involved and the valuation methodologies adopted. The third section, which is the most detailed one, describes the key steps and assumptions taken on the valuation process, from financial projections to terminal value, and ends up with the valuation results and an assessment of the accuracy for the value defined for PT Assets. On the fourth and last section, Work Project second objective is addressed, being presented a conclusion regarding merger neutrality for PT's shareholders based on the valuation results and on the information available at that time.

The Work Project deliberately only takes into consideration facts occurred and information released within the six months that followed the merger announcement, being focused the merger between Oi and PT and its impact on PT's shareholders.

2. PT, OI and the proposed merger

2.1 Portugal Telecom

PT was an international telecommunications operator focused on Portuguese-speaking countries, namely Portugal, where it was the incumbent, and Brazil where it is present since late 90s and held, since 2010, an economic stake of 23,25% in Oi (corresponding to 25,62% of voting rights). Besides its domestic operation and position on Oi, PT also owned relevant stakes in telecom companies operating in Angola (Unitel), Namibia (MTC - Mobile Telecommunications), Cape Verde (CVT - Cabo Verde Telecom), São Tomé e Principe (CST - Companhia Saotomense de Telecomunicações) and East Timor (TT - Timor Telecom).

The main shareholders of PT at the proposed merger announcement date were Espirito Santo Group (10%), Oi (10%), Ongoing (10%), CGD Group (6%), Norges Bank (5%), UBS (5%) and Visabeira (3%). CGD Group sold its stake in mid-October, after announcement of the proposed merger.

PT was seen by analysts as a player in the forefront of technology in Europe. In its domestic market, and although capital expenditures were expected to decrease in the following years, revenues and EBITDA levels were being pressured by the country's weak economic situation and by competition increase as result of the merger between Sonaecom and Zon.

In terms of financial leverage, PT shown above sector ratios, as can be observed on Appendix E: even excluding stakes on Oi and Contax, the Net Debt / EBITDA ratio for 2013 was 4,4x. As result of company's financial leverage and free cash flow profile, as well as Portuguese Sovereign credit ratings, PT's credit ratings at merger announcement date and at 2013 year end were non-investment grade: BB by Standard & Poor's and Ba2 by Moody's, both of them with negative outlook.

Finally, in terms of dividends policy, PT announced in August 2013 a cut from Euro 0,35 / share to Euro 0,10 / share which, considering current stock price levels, means a change on dividend yield from in line / above sector to below sector.

2.2. Oi

Oi is one of the largest Brazilian telecommunications operators and is the result of a consolidation process among local telecom operators. Oi is the concessionaire of fixed communication infra-structures in all Brazilian states, except São Paulo.

Oi's shareholder structure at announcement date was complex, as it was held by its institutional shareholders through holding and sub-holding companies. At that time, 57% of Oi's shares were owned by a set of institutional investors, among which PT was the most relevant. These institutional investors and their stakes on Oi were the following: PT - 23%; 3 Brazilian pension funds (PREVI, PETROS and FUNCEF, respectively pension funds of Banco do Brasil, Petrobras and Caixa Ecónomica Federal employees) - 19%; Andrade Gutierrez - 5%; La Fonte Jereissati - 5%; Fundação Atlântico (pension fund of Oi's employees; 2%); and BNDES PART (a venture investment fund managed by Brazilian public bank Banco Nacional de Desenvolvimento) - 2%. No changes on the stakes held by these institutional shareholders were announced after the proposed merger announcement.

Oi is seen by analysts as a company in the middle of an operational turnaround process, moving from a traditional wireline telecom company to an integrated operator offering fixed, mobile, broadband and Pay TV services. Main challenges identified for Oi were simultaneously penetration increase of higher value services and operating efficiency improvement, in a context of below average service levels and weak image.

Oi and PT are not so different from a financial leverage point of view. Both companies had at that time above average D/E ratios and, namely in the case of Oi, a weak free cash flow generation profile. As result of its financial position, Oi's credit ratings were non-investment grade (BBB- by Standard & Poor's, Baa3 by Moody's and BBB- by Fitch, with the first two of them with negative outlook). Simultaneously with PT, Oi announced a dividend cut of 75% (from a total of BRL 2 billion to BRL 0,5 billion) in last August of 2013.

2.3. The Proposed Merger

In July 2010, PT simultaneously announced the acceptance of Telefonica's Euro 7.5 billion offer for its stake in Vivo (another Brazilian Telecom operator) and the entrance on Oi's shareholder structure. The completion of the proposed investment on Oi occurred in the second quarter of 2011, with an investment amount of Euro 3.6 billion for an economic stake of circa 25%. At that time, PT announced an implicit EV EBITDA multiple on Oi's acquisition of 5,8x and that circa two thirds of the amount invested by PT would be through capital increases. Rationale presented by PT for investment on Oi was the following: i) transaction enables PT to maintain its scale and scope; ii) PT's experience in managing fixed and mobile assets, together with Oi's strong capabilities will lead to enhanced operational performance; iii) transaction will strengthen PT financials; iv) pro-forma Earnings per Share accretion for PT and Oi and v) strong free cash flow and dividend payout at Oi should support healthy dividend stream to PT.

In June 2013, almost three years after the announcement of the industrial alliance between PT and Oi, Zeinal Bava, PT's CEO left his position at PT and was appointed as the CEO of Oi, in what was seen as a pre-announcement of further consolidation between PT and Oi. Oi's market capitalization at end of June 2013 was Euro 1,0 billion, implying an almost complete erosion of the funds invested by PT in July 2010.

The proposed merger between Oi and PT was finally presented in October 2nd, as the "natural fulfillment of the industrial alliance established in 2010". The key merits announced for the merger should be the simplification of Oi's complex shareholder and governance structures and the alignment of shareholders and debtholders interests; and the implementation of a more effective process of using PT's proved experience and competences in exploring technology & innovation and developing integrated convergent telecom offers to crystallize growth opportunities in Brazil and better exploring Oi's fixed / mobile infrastructure, footprint and customer base. The merger should also improve operational and financial discipline and cash flow generation profile of the merged entity.

PT and Oi’s key indicators and market valuation at proposed merger announcement date are presented on the Figure 1 below:

Figure 1

PT & OI | Key information from the day before merger annoucement (01.10.13)

OI Values in 10^6 BRL (except indicated otherwise)	
Stock Price (BRL)	
OIBR3 ON	4,47
OIBR4 PN	4,22
No. shares (million)	
OIBR3 ON	599
OIBR4 PN	1.198
No. outstanding shares (million)	
OIBR3 ON	515
OIBR4 PN	1.125
Market Capitalization	**7.050**
OIBR3 ON	2.301
OIBR4 PN	4.749
No. shares owned on PT (million)	90
Market Cap., excl. stake in PT	6.132
Net Debt (announced)	29.489
Enterprise Value, excl. stake in PT	**35.621**
EBITDA 2012	7.988
EBITDA - CAPEX 2012	1.611
Enterprise Value / EBITDA	4,5
Ent. Value / (EBITDA - CAPEX)	22,1
Debt / Equity	4,8
Net Debt / EBITDA	3,7
Net Debt / (EBITDA - CAPEX)	18,3

PT Values in 10^6 Euro (except indicated otherwise)	
Stock Price (Euro)	3,40
No. shares (million)	897
No. outstanding shares (million)	855
Market Capitalization	**2.907**
No. shares owned on OI	
OIBR3 ON	109
OIBR4 PN	267
Value of stake on Oi and Contax	589
Market Cap., excl. Oi and Contax	2.318
Net Debt, excl Oi and Contax (estimated)	5.682
Enterprise Value, excl. Oi and Contax	**8.001**
EBITDA 2012, excl. Oi and Contax	1.290
EBITDA - CAPEX 2012, excl Oi and Contax	629
Enterprise Value / EBITDA (excl. Oi Cont)	6,2
Ent. Value /(EBITDA-CAPEX (excl. Oi Cont))	12,7
Debt / Equity (excl. Oi Cont)	2,5
Net Debt / EBITDA (excl. Oi Cont)	4,4
Net Debt / (EBITDA - CAPEX (excl. Oi Cont))	9,0
Exchange rate Brazilian Real / Euro	3,01

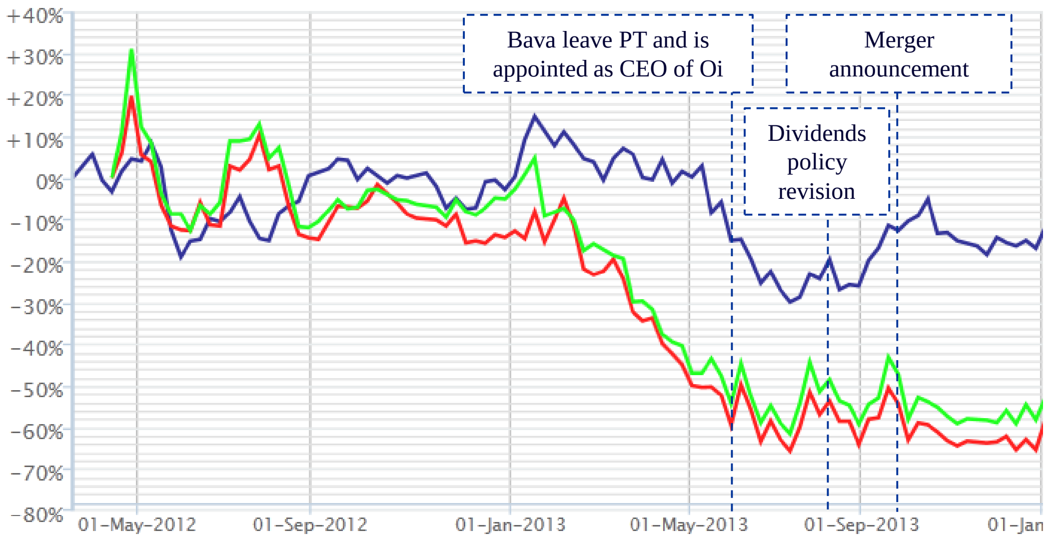
Notes: Net debt is at 30 June 2013, last information available at the announcement date. It includes the captions "Net Debt", and, in the case of PT, also "After-tax unfunded PRB obligations" and stake on Oi holding companies net debt. The stakes held by PT on Oi and Contax were calculated using these companies market capitalizations.

As can be observed in the next graph, Oi’s stock price decreased substantially during first half of 2013, putting also negative pressure on PT’s stock price. Between June and September 2013, behavior of both stocks was irregular but price ended up without changing significantly apart from the cut in dividends announced by both companies in August.

The first reaction from markets to merger was positive in the case of PT and negative in the case of Oi. In both cases, however, stock prices at 31 December were under their level at the day before announcement. This might be due to the fact that investors did not foresee value creation from the merger and / or are suspicious about its successful completion or outcomes.

Graph 1 - Market reaction to proposed merger

PT and Oi's weekly stock price evolution (15March 2012 = 100). Blue - PT's shares; red - Oi's ordinary shares; green - Oi's preferred shares.



The proposed merger between PT and Oi into a single Brazilian incorporated listed entity ("CorpCo"), relied on cash and in-kind capital increases in Oi. The key transaction terms announced were the following:

- Oi capital increase of Euro 4.7 billion, structured as a public offering of common shares and preferred shares of Oi, of which a target of Euro 2.7 billion was expected to be subscribed in cash (minimum subscription of Euro 2.3 billion) and approximately Euro 2.0 billion was expected to be subscribed by PT in kind, at the same price per share, through the contribution of the "PT Assets" (all the shares directly or indirectly held by PT in companies that hold (i) all of its operating assets, excluding those directly or indirectly held in Oi and Contax, and (ii) the respective liabilities as of the date of contribution).
- Regarding the cash capital increase, shareholders of TPart and an investment vehicle managed by Banco BTG Pactual, compromise to subscribe approximately Euro 0.7 billion.
- "PT Assets" would be subject to a valuation by an independent entity, having PT the prerogative of not consummating the subscription of shares in Oi Capital Increase if valuation result turns out to be lower than Euro 1.9 billion.
- PT may would also decide not to subscribe the Oi capital increase if the percentage participation of PT's shareholders in CorpCo after the Oi Capital Increase is equal to or less than 36.6% of the total capital of CorpCo. Additionally, TPart would not be obligated to consummate the merger if the percentage participation of the PT's shareholders in CorpCo after the Oi Capital Increase is greater than 39.6% of total capital of the CorpCo. (Assuming Oi stock price in the month preceding the proposed merger announcement and the completion of cash capital increase by the maximum amount of Euro 2.7 billion and in kind capital increase by the expected Euro 2.0 billion, PT indicated that his shareholders would own 38.1% of the voting and outstanding capital of CorpCo).

- As a result of the merger process, Oi preferential and ordinary shares and PT shares shall be exchanged by the new CorpCo shares, which would be listed on the Novo Mercado segment of BM&FBOVESPA, on the NYSE Euronext and on the NYSE.
- The merger was conditional to approvals, among others, from PT and Oi's shareholders.
- Maintenance of the management team led by Zeinal Bava.
- Shareholder annual remuneration of Euro 167 million (before transaction and considering dividends cut communicated in August, OI and PT were paying to its shareholders Euro 250 million, or Euro 212 million if dividends received by PT from Oi were excluded).

In financial terms, the result of the proposed merger should be a new entity with revenues of approximately Euro 11.6 billion, of which about three quarters generated in Brazil; an EBITDA of Euro 4.2 billion (71% coming from Oi), an EBITDA-CAPEX of Euro 1,6 billion (60% coming from Oi), and with a slightly better financial position than the aggregate PT + Oi due to the net cash capital increase. A snapshot of CorpCo key indicators is shown below, considering information available at announcement date.

Figure 2

CorpCo | Key Financials

Using 2013 figures and exchange rate @ 31.12.13

Currency	M BRL	M Euro
Revenues CorpCo	**37.893**	**11.647**
+ OI	28.422	8.736
+ PT, excl Oi	9.471	2.911
EBITDA CorpCo	**13.556**	**4.167**
+ OI	9.583	2.945
+ PT, excl Oi	3.782	1.162
+ Opex synergies	192	59
EBITDA % CorpCo	**35,8%**	**35,8%**
EBITDA - CAPEX CorpCo	**5.332**	**1.639**
+ OI	3.206	985
+ PT, excl Oi	1.865	573
+ Opex & Capex synergies	261	80

2.4. Announced synergies

The merger between PT and Oi should generate synergies in the amount of BRL 5.5 billion, of which BRL 3.3. billion operational and the remaining financial (in both cases, these are net present values estimated by PT and Oi using a 10% discount rate). The operational synergies, which shall have an impact on the operational cash flow of BRL 261 million, would be mainly driven by organizational and procurement gains from having an effectively integrated management of Portuguese and Brazilian telecom businesses; the financial synergies should be the result of the expected reduction in financial leverage as result of cash injection and credit facilities renegotiation.

According to PT and Oi's executives, the operational synergies estimated (equivalent to about 1% of opex and capex) were below the usual targets on mergers between telecom companies.

3. Valuation methodologies

Valuation methodologies are usually structured into four groups: i) income approach; ii) market approach; iii) asset based approach and iv) option based approach. Among these four groups, the first two are simultaneously the most applied either by practitioners in corporate transactions or by financial managers and academicians. These were also the two methodologies adopted on the value assessment exercise performed. On this section the valuation methodologies adopted are briefly described based on text-books and articles from Koller et all, Brealey et all and Ross et all.

3.1. Income approach methodologies

Income approach methodologies, also known as Discounted Cash Flow methodologies, are based on the key assumption that the value of a business is determined by its capacity to generate financial resources in the future. There are several variants of these income approach methodologies, each of them adopting specific assumptions and contexts and motivating the application of different types of cash flow and discount rate. The most common variants are WACC, APV and FTE. In theory, all these variants should reach the same result.

In the WACC variant, the free cash flows to the firm are discounted at a weighted average cost of capital, which incorporates all the financial effects, namely any benefits or costs related with the leverage in the capital structure of the firm. The major drawback of this method is that either the firm has a stable capital structure, or one needs to compute a new discount rate, i.e. a new WACC every period, which would be hard to achieve in practice given circularity on calculations. Despite the identified drawback, WACC is the most widely applied variant of income approach methodologies, probably because its application is misleadingly simpler and intuitive.

The APV method consists of discounting and adding separately the two components of future cash flow generation: the valuation of the firm as if it were all equity financed and therefore discounting the free cash flow to firm at an unlevered cost of capital plus the present value of financing side effects such as interest tax shields or financial distress related costs. APV is seen as a technically more robust variant than WACC as it works even when that method cannot be applied due to fluctuations in companies' financial structures. In companies with relevant default probabilities, as is the case of non-investment grade companies' credits, it is also advisable to use APV given difficulties in estimating expected cost of debt to be used on the computation of free cash flow's discount rate. Also, for managerial decisions, APV is richer in information, since the financial effects can be clearly identified from the value of the project / assets of the company itself. This allows managers to understand where value comes from. The pitfall of this method is the quantification, in practical terms, of the other financial side effects besides interest tax shields, namely the financial distress related costs which, for companies with high financial leverage, might have significant negative impact on firm's value.

FTE is also a widely used variant of the income approach methodologies, namely in Project Finance. With this variant, the after-tax cash flows going to equity-holders are discounted using its cost of capital. This variant requires more support in terms of financing and capital budgeting systems having, like WACC, as major drawback the requirement of a stable capital structure. Nevertheless, FTE contributes to show explicitly how changes in ownership structures affect cash-flow distribution and risk, year by year, for the equity holders. While WACC and APV output is the Enterprise Value, on FTE the output is the Equiy Value itself, since cash flows discounted are after tax and payments to debt holders.

APV was the chosen variant of income approach methodologies because debt structures of the companies are expected to change over the next years and their classification as non-investment credit rating companies.

3.2. Market approach methodologies

On these methodologies, a company is valued through a comparison with other similar companies in the market. To obtain a company value, average or median multiples such as Enterprise Value / EBITDA, Enterprise Value / Free Cash Flow, Price to Earnings Ratio, Price to Book Value, etc. of comparable companies are used on company equivalent indicators. The selection of the multiples to be adopted depends, among other factors, on company's industry (for example, more or less capital intensive, level of regulatory background, etc.), on information available and even on valuation circumstances. The Enterprise Value / EBITDA is one of the most commonly adopted multiples, since EBITDA is usually seen as a proxy for cash flow available to the firm, takes into account company's profitability and is capital structure-neutral. In capital intensive industries, Enterprise Value / (EBITDA – Capex) is also commonly adopted since capital expenditures might consume a relevant stake of operating cash flow. These were the two multiples adopted in the valuation assessment.

The market methodologies are straightforward and simple to calculate. The main challenge however, is to identify which companies in the market are comparable with the one being valued, i.e. defining the peer group. Multiples can be calculated from the trading values of firms in the same industry as the firm being valued and / or from similar companies involved in transactions. In the former case, multiples might include an acquisition premium.

Besides the difficulty of identifying the peer group, other disadvantages of market approach methodologies are their relatively insensitivity to company specifics such as unique competitive advantages and market position, one-time past or future events / circumstances and accounting policies; and relying on current market value ratios, which might be influenced by waves of unsubstantiated investor's optimism / pessimism. However, market approach methodologies are less demanding in terms of information and do not require forecasting future cash flows (which might be a quite subjective exercise), neither computing discount rates nor assuming assumptions about risk and market's efficiency. Considering each methodology disadvantages, income and market approaches are usually simultaneously used by practitioners.

4. Valuation of PT and Oi

4.1. Valuation of "PT Assets"

As defined in the MoU, "PT Assets" comprised all PT's net assets with exception of the Brazilian assets Oi and Contax. Considering this definition and according to the company's Annual Report, PT Assets included three distinguishable sets of assets: i) PT domestic telecommunication business; ii) stakes held in several African (Unitel, MTC, CVT, CST) and Asian (TT) telecommunications operators and iii) specific Portuguese support companies, namely PT - Sistemas de Informação, Portugal Telecom Inovação, PT Pro Serviços Administrativos e de Gestão Partillhados and PT Contact – Telemarketing e Serviços de Informação.

The level of available information among the 3 above defined sets of PT Assets differed substantially. While for PT domestic telecommunication business, historical information and financial analyst's reports with projections could be found (PT policy was not to provide guidance regarding forward looking information); for the other two sets, information was very limited, comprising only historical financial statements or, as is the case of the African and Asian companies held by PT, just some key historical indicators from companies financial statements. Given these limitations, valuation of the stakes held by PT on the African and Asian companies and of the Portuguese support companies previously mentioned was only feasible by adopting a market based approaches. Instead, for PT's domestic telecommunication business, valuation was carried through the application of income approach methodologies and, complementarily, market approach methodologies.

4.1.1 Valuation of PT domestic business unit EV, using APV

Valuation of PT domestic business, given currently PT policy not to provide guidance regarding forward looking information, was based on Espirito Santo – Investment Bank's financial projections (profit and loss account and cash flow statement) dated of 16th September 2013 (proposed merger was announced on 2nd October 2013). The changes introduced on ESIB's financial projections were the following:

- Taxes

  On the first years of projections and based on existence of tax credits, ESIB's considers cash taxes on cash flow statement lower the ones showed on respective profit and loss account. Additionally, ESIB includes all the amount of cash taxes on free cash flow to the firm. In the valuation exercise performed, the operating cash taxes were computed as 31,5% x (EBIT+ Costs with Post retirement Benefits). Underlying assumptions behind this calculation are that tax credits are a non-operating item (as suggested by Koller et all) such as post retirement benefit, absence of operating deferred tax items related with domestic business and an aggregate statutory income rate of 31,5%.

- Post-retirement benefits

  ESIB included post-retirement benefits cash payments on free cash flow to the firm. As suggested by Koller et all, post-retirement benefits are a debt equivalent item, so payments related with them were treated as a non-operating cash flow.

- Cash flow for the terminal value

  The cash flow forecasted for 2016, last year of ESIB's financial projections, was still including an amount of capital expenditures about 20% below depreciation. To avoid distortions caused by this situation that, on a long term perspective, should not be expected to occur (no evidence of reasons to sustain such differences on long term were identified), additional years were added on projections.

  Regarding depreciation, growth path implicit on period 2012 / 2016 was preserved. In respect to capex, it was adopted a ratio of capex-to-sales equal to the average observed among European telecom carriers (15,8% vs 14,2% implicit on ESIB's projections last year). With one additional year and considering assumptions described, amount of capex and depreciation are almost equal (Euro 418 million vs Euro 409 million) in projections' new last year.

  On the additional year (2017), it was assumed maintenance of EBITDA margin (44,4%) and growth equal to the one used to compute terminal value.

The Profit & Loss Account and the Cash Flow Statement of PT Domestic Business used for valuation purposes are presented below.

Figure 3 a.

PT Domestic Business | Profit & Loss Account

Profit & Loss Account	**2011**	**2012**	**2013**	**2014E**	**2015E**	**2016E**	**2017E**
Values in '000.000 Euros							
+ Sales	**2.892**	**2.700**	**2.574**	**2.562**	**2.585**	**2.602**	**2.619**
Sales Growth	*0,0%*	*-6,6%*	*-4,7%*	*-0,5%*	*0,9%*	*0,7%*	*0,7%*
- OPEX	1.586	1.499	1.477	1.461	1.447	1.447	1.457
= EBITDA	**1.306**	**1.201**	**1.097**	**1.101**	**1.138**	**1.155**	**1.163**
= EBITDA%	*45,1%*	*44,5%*	*42,6%*	*43,0%*	*44,0%*	*44,4%*	*44,4%*
- D&A	703	681	649	584	478	463	409
- PRB Costs	54	57	44	39	34	29	22
= EBIT	**548**	**463**	**404**	**478**	**626**	**663**	**732**
= EBIT%	*19,0%*	*17,1%*	*15,7%*	*18,6%*	*24,2%*	*25,5%*	*28,0%*
+ Financial results		(266)	(239)	(214)	(192)	(166)	(145)
= EBT		**197**	**165**	**264**	**434**	**497**	**588**
- Corporate Income Taxes		57	52	83	137	157	185
Corporate Income Taxes Rate		*29,0%*	*31,5%*	*31,5%*	*31,5%*	*31,6%*	*31,5%*
= Net Income		**140**	**113**	**181**	**297**	**340**	**402**
= Net Income %		*5,2%*	*4,4%*	*7,1%*	*11,5%*	*13,1%*	*15,4%*

Figure 3 b.

PT Domestic Business | Cash Flow Statement

Cash Flow Statement	**2012**	**2013**	**2014E**	**2015E**	**2016E**	**2017E**
Values in '000.000 Euros						
= EBIT	**463**	**404**	**478**	**626**	**663**	**732**
+ D&A	681	649	584	478	463	409
+ PRB Costs	57	44	39	34	29	22
- Adjusted taxes	134	127	163	208	219	238
+ Disposals	-	336	-	-	-	-
- Working Capital Investment	224	88	50	25	-	4
- Capex	555	493	449	368	370	413
= FCF to Firm	**288**	**725**	**439**	**537**	**566**	**508**

As previously referred, APV was the chosen variant among income approach methodologies to assess the value of PT domestic business. On APV, the value of a firm is driven by two components – the "all-equity" firm value, computed using an unlevered cost of capital, and the present value of financing side effects.

Starting on the first component, the "all-equity" firm value, free cash flows above presented were discounted at an unlevered cost of capital of 8,9%. This rate was computed adopting CAPM and using the following considerations:

- Risk Free Rate

  It was adopted as risk free rate the yield-to-maturity of 10 years German Bonds at valuation date. Reasons to choose these bonds are: high liquidity and low credit risk of German Bonds and compatibility between such bonds and asset under valuation (both are European, uses same currency and have medium / long durations on cash flows generated).

- Market Risk Premium

  Is not unanimous what should be the market risk premium adopted in the valuation of companies. Historical results, which are seen as a proxy to estimate this variable, varies depending on time period considered and on what is used as risk free asset and "market" asset. In the present case and following Koller et all, which states that "market risk premium varies continually between 4,5% and 5,5% … being nowadays closer to the upper level of such limit", a market risk premium of 5,5% was adopted.

- Unlevered Beta

  To compute unlevered betas, two methodologies are usually followed: i) adopt company's levered beta and deleveraging it; or ii) use industry betas.

  In the first case, PT's levered raw beta computed based on weekly observations against S&P500 for the three years before transaction announcement was 0,73. Considering PT's D/E, an adjusted beta of 0,82 (as applied by Bloomberg where smoothed adjusted beta = raw bate x 0,67 + 1 x 0,33) and marginal corporate tax income rate of 31,2%, unlevered beta obtained was 0,26. The drawback of such calculation is the low R-squared implicit on the historical regression using PT's raw beta (0,13). The R-squared do not change significantly if observation period is reduced or increased one or two years.

  To overcome this drawback, it was adopted the second methodology previously mentioned – using industry betas. In this case, starting point were corporate betas of the 25 European companies belonging to PT's sector ("Telecom Carriers Europe", as defined by Bloomberg). These betas were calculated using weekly information from each company stock price and SP 500, being the data range the three years before valuation date. The levered betas were afterwards deleveraged using each company D/E ratio and effective tax rate. The average unlevered beta obtained was 0,44. On Appendix G are presented calculations made to reach the unlevered beta used on valuation.

- Country Risk Premium

  According to financial theory, share price of any company reflects systematic and unsystematic risk. In traditional CAPM, only the first – systematic risk, measured as Beta x Market Risk Premium – is considered for computing cost of capital, since on an efficient market a diversified investor is able eliminate unsystematic or idiosyncratic risks. In practice and given caveats identified on its assumptions, namely regarding market efficiency, is common to see academics and financial analysts adopt adjustments to the traditional CAPM. This is particularly the case of companies operating in countries with unstable macro-economic or political context, where investors may require a country-related risk premium. Reasoning underlying a country risk premium is that markets are not fully integrated, so investors need to obtain an extra risk premium to compensate for unsystematic risk they will bear and are not able to diversify. An alternative way (and probably more aligned with CAPM principles) of dealing with country unsystematic risk, would be to adjust cash flows. Envisaging the precise effects of country risk on a company's expected cash flows is extremely difficult, which explains academics and financial advisors widely preference on adjusting cost of capital.

In what respects the valuation of PT domestic business, sustains the application of a country risk premium the deterioration in Portuguese sovereign risk (sovereign debt ratings were below investment grade and with long term negative outlook for Fitch and Standard & Poor's at the time of announcement) and some social and political turbulence resulting from negative economic growth levels in recent years, high unemployment rates and conservative policies in public spending.

Country risk premium is usually calculated as the difference between yields to maturity of local sovereign bonds and the ones used for calculation of risk free rate. In the case of PT domestic business, country risk premium included on cost of capital follows that practice, being calculated as the difference between average yields to maturity of Portuguese 10-year bonds and to German 10-year bonds observed in the year that precedes valuation date (2013, in the case).

Below is presented the unlevered cost of capital resulting from assumptions above described.

Figure 4

PT Domestic Business | Unlevered cost of capital	
Unlevered Cost of Capital = a + b x c + d	**8,9%**
(a) Risk Free Rate	1,9%
(b) Beta Unlevered	0,44
(c) Market Risk Premium	5,5%
(d) Country Risk Premium	4,5%

Still regarding the first component of PT domestic business value assessment, the "all-equity" firm value, in the computation of the terminal value it was adopted a NOPLAT growth rate equal to the one adopted by ESIB on their last projection year. This assumption follows an understanding that Portuguese telecom sector is competitive and mature and that no relevant changes are expected on business size / turnover and profitability.

Moving to second component of PT domestic business valuation, the present value of financing side effects, and given limited information to estimate effects such as financial distress costs or subsidized interest costs, only the present value of tax shields was considered on this value component. On computation of the present value of tax shields, discount rate used is equal to the interest rate paid by PT on its long term debt facilities in 2013 (5,3%). The cash flow over which this discount rate was applied is equal to the product of annual interest costs times corporate income tax rate (PT domestic business exhibits positive earnings before taxes in all years and an income tax rate of 31,5%). Given implicit financial leverage ratio for PT domestic business on 2017 (last year of projection) does not differ substantially from correspondent sector ratio, no adjustment was considered for calculation of tax shield terminal value. At the that time, PT rating level was below investment grade (for example, BB in case of Standard and Poor's), implying that the business may face some constraints, which due to information limitations are not being included on calculations. Present value of financial effects is, by consequence, probably being over estimated.

The results of valuation of PT domestics business using Adjusted Present Value are presented below.

Figure 5

PT Domestic Business | APV - Valuation Results

Valuation Results	@ 01.01.2014
Values in '000.000 Euros	
"All Equity"	**6.080**
Continuing Value	1.657
Terminal Value	4.423
Tax Shield	**856**
Continuing Value	199
Terminal Value	656
Enterprise Value - PT Domestic Business	**6.935**

4.1.2. Valuation of PT domestic business unit EV, using market multiples

Enterprise Value estimated for PT domestic business using market multiples, namely EV / (EBITDA-CAPEX) and EV / EBITDA, is lower than the one obtained using income approach methodologies either adopting 2013 or 2014E figures. If average multiples are considered, difference at EV level is about Euro 0,5 billion. In Appendix E is presented the computation of multiples used. Difference between results of both methodologies might be caused by (not exhaustive): different expectations between "market" and BESI regarding EBITDA and / or CAPEX evolutions, different risk perception over the asset, distinguishable assets and / or PT's positioning that might justify higher price.

Figure 6

PT Domestic Business | Market Multiples - Valuation Results

Multiples	EV / [EBITDA-CAPEX]	EV / EBITDA
Average	**10,6**	**5,9**
Median	9,3	5,1
Valuation using average market multiples	2013	2014E
PT Domestic Business's Key data		
EBITDA	1.091	1.101
CAPEX	490	449
EBITDA - CAPEX	601	652
using EV / (EBITDA - CAPEX) multiple	**6.374**	**6.915**
using EV / EBITDA multiple	**6.445**	**6.504**
Enterprise Value using income approach methodologies (APV)	6.935	

Source: Bloomberg; PT

4.1.3. Valuation of stakes held on African and Asian companies and on Portuguese support companies

"PT Assets" owns a significant number of companies, including dormant companies, several holdings and sub-holdings and stakes on small size companies. For valuation purposes, only companies mentioned on initial section of PT's annual report were considered. Among these companies, Unitel, the leading Angolan telecom company with revenues of almost Euro 1,6 billion and net income of Euro 750 million, is the most relevant.

As previously referred, market approach methodologies were adopted for valuation of the stakes held by "PT Assets" on the African and Asian companies and on Portuguese support companies. In the case of stakes held on the African and Asian companies, and given absence of information of what could be companies net debt position, Price-to-Earnings was the chosen approach. For the Portuguese support companies, which are fully consolidated and owned by PT (implying inexistence of any non-controlling interest deducting to equity) and respective net debt is already included on "PT Assets" consolidated net debt position, the Enterprise Value (and not only Equity Value) of these cases were added on "PT Assets" valuation (these companies are not included on PT Domestic telecommunications business unit). In either cases and since companies are owned, managed or closely supervised by PT, it was adopted PT's own implicit market multiples at valuation date. Given that PT's stake is below 50% on the African and Asian companies and these are unquoted companies, following guidelines issued by EVCA about the marketability of stakes held, a discount of 20% over valuation derived from multiples application was adopted.

Below, results obtained on the valuation of stakes held on African and Asian companies and on Portuguese support companies.

Figure 7

PT Assets | Valuation for stakes in African and supporting companies

(2012; M Euros)	% Owned	Revenues	EBITDA	Net Income	Consolidation method	Equity Value	Enterprise Value
African and Asian Companies						**870**	
Unitel	18,8%	1.590	923	750	Equity method	760	
MTC (Namíbia)	25,5%	180	86	34	Equity method	47	
Cabo Verde Telecom	30,0%	76	37	12	Equity method	20	
Timor Telecom	41,1%	58	32	19	Equity method	42	
CST (São Tomé)	38,3%	12	3	1	Equity method	1	
Portuguese Support companies							**190**
PT Sistemas de Informação	100%	114	5	-3	Full consolidation		30
PT Inovação	100%	92	15	14	Full consolidation		86
PT Pro Serviços	100%	56	5	2	Full consolidation		29
PT Contact	100%	111	8	2	Full consolidation		45

Source: PT, Bureau Van Dyik Amadeus

4.1.4. Net Financial Debt of "PT Assets"

"PT Assets" net financial debt includes two items: i) the net debt and tax unfunded post-retirement benefits obligations, as communicated to investors by PT; and ii) PT's estimated share on Oi's Holding companies net debt. Regarding this second item, since stake on Oi's Holding companies (as Oi and Contax) were consolidated in 2013 using the equity method and, according to information available, these companies (TPart, LF Telecom, AG Telecom, among others) are only investments vehicles used by PT and other Oi's institutional shareholders (not having other activity besides having direct or indirect stakes in Oi or Contax), only their net debt position was included. Also according to available information, the debt amount of these entities was BRL 4,5 billion at that time. Given not being known the allocation of debt amount by company, it was assumed that PT's share would be equal to the proportion held on TPart equity, the most relevant of these holding companies. So, from this BRL 4,5 billion, 25,3% or the Euro equivalent to BRL 1,14 billion was included on PT Assets net debt estimation.

4.2. Valuation of Oi

The only two assets held by PT and not included on PT Assets are the stakes on Oi and on Contax.

Regarding Oi's, the valuation methodology and assumptions adopted were the same as used on the case of PT domestic business. Given Oi's policy not to provide guidance regarding forward looking information (like PT), financial projections adopted are based on UBS's equity report dated of 8th October 2013. Like for PT, it was chosen financial projections close to merger announcement date. On this section are presented the assumptions and results of Oi's valuation exercise.

About Contax, this is a Brazilian quoted company having as core business the operation of contact center business, mainly in Brazil. The stake directly and indirectly held on this company by PT is 12%. Given immaterially of this asset when compared to PT Domestic Business or Oi and limited information about what could be company's financial projections, it was adopted company's market capitalization for the purposes of the analysis carried. The value of the equity stake held by PT on Contax was BRL 170 million (total market capitalization of this company is BRL 1,4 billion).

4.2.1 Valuation of Oi's EV, using APV

The Profit & Loss Account and Cash Flow Statement used on Oi's valuation are presented below.

Figure 8 a.

Oi | Profit & Loss Account

Profit & Loss Account	2012	2013	2014E	2015E	2016E	2017E
Values in '000.000 BRL						
+ Sales	**25.170**	**28.382**	**28.266**	**28.806**	**29.357**	**29.918**
Sales Growth	*0,0%*	*12,8%*	*-0,4%*	*1,9%*	*1,9%*	*1,9%*
- OPEX	17.178	20.164	19.931	19.963	20.345	20.734
= EBITDA	**7.992**	**8.219**	**8.335**	**8.843**	**9.012**	**9.184**
= EBITDA%	*31,8%*	*29,0%*	*29,5%*	*30,7%*	*30,7%*	*30,7%*
- D&A	4.202	4.244	4.522	4.897	4.897	4.897
= EBIT	**3.790**	**3.975**	**3.813**	**3.946**	**4.115**	**4.287**
= EBIT%	*15,1%*	*14,0%*	*13,5%*	*13,7%*	*14,0%*	*14,3%*
+ Financial results	(2.214)	(3.131)	(2.891)	(3.078)	(3.324)	(3.377)
= EBT	**1.575**	**844**	**922**	**868**	**792**	**911**
- Corporate Income Taxes	443	290	313	295	269	310
Corporate Income Taxes Rate	*28,1%*	*34,3%*	*34,0%*	*34,0%*	*34,0%*	*34,0%*
= Net Income	**1.133**	**555**	**608**	**573**	**522**	**601**
= Net Income %	*4,5%*	*2,0%*	*2,2%*	*2,0%*	*1,8%*	*2,0%*

Figure 8 b.

Oi | Cash Flow Statement

Cash Flow Statement	2012	2013	2014E	2015E	2016E	2017E
Values in '000.000 BRL						
= EBIT	**3.790**	**3.975**	**3.813**	**3.946**	**4.115**	**4.287**
+ D&A	4.202	4.244	4.522	4.897	4.897	4.897
- Adjusted taxes	1.065	1.363	1.296	1.342	1.399	1.458
- Working Capital Investment	2.316	456	5	156	89	90
- Capex	5.668	5.900	5.900	5.900	5.308	4.717
= FCF to Firm	**(1.057)**	**499**	**1.134**	**1.446**	**2.216**	**2.920**

As in the case of PT, some changes were introduced on USB's financial projections, namely regarding the cash flow used on terminal value calculation. Additional years were added in order align depreciation and capex and amount of working capital investment in perpetuity. In this last case, as made to PT, was assumed an annual investment in working capital for perpetuity based on 2013 working capital / sales ratio. On the additional years added (2016 and 2017), it was assumed maintenance of EBITDA margin (30,7%) and growth equal to the one used to compute terminal value.

Like for PT Domestic Business, APV was the chosen variant among income approach methodologies to assess the value of Oi. The unlevered cost of capital used to access "all-equity" firm value of Oi was computed adopting CAPM and considering similar assumptions as the ones applied in the case of PT Domestic Business. The adjustments included in this case for the computation of Oi's unlevered cost of capital were the following:

- Risk Free Rate

  It was adopted as risk free rate the yield-to-maturity of 10 years US Bonds (instead of 10 years German Bonds), given that US dollar is usually the reserve and reference currency in Brazilian economy.

- Unlevered Beta

  It was adopted an industry beta calculated from individual corporate betas of Latin American telecom companies (like for PT, calculated using SP500 and weekly information of the assets during three years). The average unlevered beta obtained was 0,43, which is very similar to the one obtained from European Telecom Carriers (0,44). On Appendix H is presented detail of calculations made.

- Country Risk Premium

  Like for PT domestic business and due to the same reasoning, a country risk premium was adopted. It was calculated using same methodology, this is, the difference between average yields to maturity of local Brazilian 10-year bonds (nominated in local currency) and "risk free" US 10-year bonds in the year previous to valuation date.

Below is presented the unlevered cost of capital adopted on Oi's valuation.

Figure 9

Oi | Unlevered cost of capital

Unlevered Cost of Capital = a + b x c + d	**12,9%**
(a) Risk Free Rate	3,0%
(b) Beta Unlevered	0,43
(c) Market Risk Premium	5,5%
(d) Country Risk Premium	7,5%

As for PT domestic business, growth rate adopted for computation of the terminal value equals the one adopted by USB on the last year of their projections.

To complete valuation through APV methodology, the present value of financing side effects need to be added to the "all equity" firm value. As for PT domestic business, and given limited information level, only the present value of tax shields was considered on this second value component. However and considering Oi's financial leverage, is plausible to consider that company may be incurring in negative financial distress effects and, by consequence, the present value of the financial side effects are probably being over estimated (like in the case of PT domestic business).

On computation of the present value of tax shields, it was adopted a discount rate equal to the one paid by Oi on its long term debt facilities in 2013 (11,1%). The cash flow over which this discount rate was applied is equal to the product of annual interest costs times corporate income tax rate (are expected positive earnings before taxes for Oi in all projection years and an income tax rate of 34,0%).

The valuation results for Oi using Adjusted Present Value methodology are presented below.

Figure 10

Oi | APV - Valuation Results

Valuation Results	**@ 01.01.2014**
Values in '000.000 Euros	
"All Equity"	**22.255**
Continuing Value	5.482
Terminal Value	16.772
Tax Shield	**10.062**
Continuing Value	3.307
Terminal Value	6.754
Enterprise Value - Oi	**32.316**

4.2.2 Valuation of Oi's EV, using market multiples

The market approach methodology, based on market multiples from Latin American telecom companies, estimate for Oi an Enterprise Value between BRL 19,9 billion and BRL 35,5 billion if EV / EBITDA – CAPEX or EV / EBIT, respectively, are applied. Difference between these two results might be related with above average capital expenditures made by Oi at that time (in 2013, 21% of sales against 19% of his Latin American peers or 16% of his European Peers) and / or with the use of on-off proceeds from an asset disposal occurred in 2013 (in the amount of BRL 1,7 billion). If, capital expenditure net of asset disposal is used on the computation of Oi's Enterprise Value, result reached for Oi using EV / EBITDA – CAPEX would be BRL 38,8 billion.

Figure 11

Oi | Market Multiples - Valuation Results

Multiples	EV / [EBITDA - CAPEX]	EV / EBITDA
Average	**10,8**	**4,3**
Median	10,6	4,3
Valuation using average market multiples	2013	2014E
Key data		
EBITDA	8.219	8.335
CAPEX	6.377	5.900
EBITDA - CAPEX	1.842	2.435
using EV / (EBITDA - CAPEX) multiple	**19.917**	**26.336**
using EV / EBITDA multiple	**35.461**	**35.964**
Enterprise Value using income approach methodologies (APV)	32.316	

Source: Bloomberg; Oi

4.2.3 Net Financial Debt of Oi

As for "PT Assets", net financial debt adopted on the valuation follows information communicated by Oi to investors. At valuation date, Oi's total net financial debt was BRL 30, 4 billion or 3,2x EBITDA.

4.3 Valuation Results

On this section are presented the results of the valuation exercises performed and previously described and a conclusion is proposed in relation to the first objective of the work project - assess the accuracy of the value proposed for "PT Assets". Results are also compared with respective implicit market capitalizations.

4.3.1 PT Assets

The equity value estimated for PT Assets through the application of APV is Euro 2,3 billion and through the application of market multiples vary between Euro 1,7 billion (using EV / EBITDA – CAPEX ratio) and Euro 1,8 billion (using EV / EBITDA ratio). The value confirmed by PT for his "PT Assets" was Euro 1,9 billion. Additionally, considering PT, Oi and Contax market capitalizations and the stakes held by PT on Oi (23%) and Contax (12%), the implicit market capitalization for PT Assets is Euro 2,2 billion.

These results seem to indicate an alignment between valuation proposed by PT and current market multiples and a difference to assets' intrinsic value as estimated through the application of APV. By other hand, the difference between the value announced by PT and implicit market value derived strictly from market capitalizations may indicate that either PT either OI stock price may be, respectively, over and / or under valued.

What might be causing the difference between the values reached by each of the methodologies applied? Is PT being over-conservative regarding the value proposed for PT Assets? Or was the valuation carried through APV and previously described too optimistic, as market multiples seem to point out?

The results of Oi's valuation using market multiples are the following:

Figure 12 a

PT Assets | Complete Valuation Results @ 31.12.13

"PT Assets" | Unit: '000.000 Euros

1. PT Domestic Business		
Using APV	discount rate	results
"All Equity" Firm Value	8,9%	6.080
Present Value of Tax Shield	5,6%	856
Enterprise Value		6.935
Using market multiples	multiples	results
Average EV / EBITDA & 2013 figures	5,9	6.445
Average EV / (EBITDA-Capex) & 2013 figures	10,6	6.374
2. Net Financial Debt (deducted from other Non Operating Assets)		
+ Net Financial Debt		5.708
- Stakes on African telecoms and Portuguese supporting companies		1.060
Net Financial Debt (deducted from other Non Operating Assets)		4.648
3. "PT Assets" - Equity Value		
Using APV		
+ Enterprise Value		6.935
- Net Financial Debt (deducted from other Non Operating Assets)		4.648
Equity Value - PT Assets		2.288
Using market multiples		
Average EV / EBITDA & 2013 figures		1.798
Average EV / (EBITDA-Capex) & 2013 figures		1.727
4. Market Capitalization - PT Assets [see Appendix A]		**2.235**

Reasons for the difference on the results might be the use of distinct valuation methodologies and assumptions or, given PT's policy of not providing forward looking information, the use of financial projections not consistent to what could be PT's privileged and sustained expectations about his business evolution.

The difference between results from valuation made by PT and implicit market capitalization for PT Assets (circa Euro 0,3 billion) is, however, somehow surprising since is the recognition of stock prices not adjusted with what is PT privileged view over his own business. Among other reasons, this difference can be explained by inclusion on PT stock price of portion of estimated synergies from merger (not included on a "as is" valuation of PT Assets), control premiums (over Oi), cross-shareholdings between Oi and PT, and / or, given Oi's complex shareholder structure and information asymmetry about regarding forward looking statements, misconstructions in assumptions taken by financial markets.

Due to information asymmetries, any analysis of the accuracy of the valuation proposed by PT to their "PT Assets" has limitations. Given the results obtained by applying the market multiples, a conclusion that they are not accurate can not be taken. From APV and implicit market capitalization, it can be however challenged if the all PT's specific aspects were duly considered.

4.3.2. Oi

The equity value estimated for Oi through the application of APV is BRL 1,9 billion and through the application of EV EBITDA market multiple is BRL 5,0 billion (using EV / EBITDA – CAPEX ratio, and given OI's current proportionally higher capex level, equity value would be negative). Oi's market capitalization at end of 2013, if the 10% stake held in PT is excluded, was BRL 5,0 billion, that matches results from application of EV EBITDA multiple.

Figure 12 b

OI | Complete Valuation Results @ 31.12.13

Oi | Unit: 000.000 BRL		*Euro 1 = BRL 3,25*
1. Enterprise Value		
Using APV	discount rate	results
"All Equity" Firm Value	12,9%	22.255
Present Value of Tax Shield	11,1%	10.062
Enterprise Value		32.316
Using market multiples	multiples	results
Average EV / EBITDA & 2013 figures	4,3	35.461
Average EV / (EBITDA-Capex) & 2013 figures	10,8	19.917
2. Equity Value		
Using APV		
+ Enterprise Value		32.316
- Net Financial Debt		30.416
Equity Value		1.900
Using market multiples		
Average EV / EBITDA & 2013 figures		5.045
Average EV / (EBITDA-Capex) & 2013 figures		(10.499)
3. Market Capitalization - Oi (excluding stake held on PT)		**4.976**

The results derived from APV and from EV / EBITDA – CAPEX may point out that company might be comparatively over valued given his current free cash flow generation profile, that some merger synergies are already being included on stock price or even further gains from consolidation movements on Brazilian telecom sector.

5. Neutrality of the proposed merger

The proposed merger between PT and Oi was presented as the "natural fulfillment of the industrial alliance" and the way to definitely simplify shareholder and governance structures as well as align them to a common goal of increasing overall efficiency. The merger should also allow and potentiate the capitalization of PT's proved experience and competences on a different market (Brazil) and on different company (Oi) still offering meaningful value creation opportunities. Based on these premises, operational and financial synergies generated through the merger were estimated in BRL 5.5 billion. The figure below points out the key reasons motivating the merger between PT and Oi.

Figure 13

Key reasons motivating the merger

A. Serious difficulties faced on integrating PT and Oi and on creating value from industrial alliance established (including on accomplish integration synergies), given distinct shareholder structures.
B. Urgency of a cash injection, given financial leverage of PT, Oi and Oi's holdings and capex requirements of Oi
C. Invert Oi's value destruction trajectory (in financial markets) and prevent Oi's entrance on a financial distress situation, by creating conditions for an effective turnaround
D. Capitalize PT's experience and knowledge and create further value to its shareholders in a context of limited value creation opportunities in its main market (Portugal)
E. To start positioning Oi / PT on potential consolidation movements in telecom industry in Brazil and South America

Given merger's motivation and context, it was widespread an idea that transaction was planned to be neutral, from a financial perspective, to both shareholders structures. Valuation results may not support, however, a thesis that transaction is neutral - results from APV methodology (which is the one more suitable to what can be PT and Oi's specific present and future features), indicates higher equity value for PT Assets (compared to the Euro 1.9 billion valuation defined under the merger completion process) and lower for Oi (compared with market capitalization). This finding is corroborated, in the case of PT Assets, by its implicit market capitalization and, in the case of Oi, by the results derived from the application of EV / (EBITDA-CAPEX) market multiples. In both cases, this may originate a value transfer from PT's shareholders to Oi's shareholders and the possibility of an immediate gain / loss, strictly as result of the merger completion.

It can be the case that PT's shareholders may be willing to accept the presumable value transfer, if their share on the synergies generated through the merger (which seems to be more Oi-related than PT-related) compensate such value transfer. The analysis carried and presented on the next figure seems to consubstantiate such case – PT's shareholders will neither have immediate gains or losses from merger if valuation result from APV or from implicit market capitalizations are taken into consideration. If EV / EBITDA valuation methodology is taken as reference, and given its alignment with valuation defined for PT Assets, PT's shareholders shall profit from merger in a proportion close to the stake held by PT on Oi. Either in the case where no gain or loss from merger is obtained by PT's shareholders, either in this last case, PT's shareholders may still legitimate claim for a higher share of merger synergies, since the valuation defined for PT Assets does not include synergies (which shall be the result of applying PT's proved experience and knowledge on Oi) and given their initial stake on total PT+OI worth.

The figure below compares PT shareholders' position before and after merger.

Figure 14

PT Shareholders' position before and after merger

Unit: 10^6 Euros @ 31.12.2013

		Valuation Results		
Before Merger	% owned	EV EBITDA	APV	Market Cap.
PT + OI				
PT Assets	100%	1.798	2.288	2.235
Oi (excl. stake in PT)	100%	1.551	584	1.530
Contax	12,2%	56	56	56
TOTAL		**3.405**	**2.928**	**3.821**
PT's shareholders Position				
PT Assets	100,0%	1.798	2.288	2.235
Oi (excl. stake in PT)	23,3%	361	136	356
Contax	12,2%	56	56	56
TOTAL		**2.214**	**2.479**	**2.647**
OI's shareholders (excl. PT) Position				
Oi (excl. stake in PT)	76,8%	1.190	448	1.174
TOTAL		**1.190**	**448**	**1.174**
After Merger (before cash injection)	% owned	EV EBITDA	APV	Market Cap.
PT + OI				
PT Assets	100%	1.900	1.900	1.900
Oi (excl. stake in PT)	100%	1.551	584	1.530
Synergies	100%	1.691	1.691	1.691
Contax	12,2%	56	56	56
TOTAL		**5.197**	**4.231**	**5.176**
PT's shareholders Position				
PT Assets	100,0%	1.900	1.900	1.900
Oi (excl. stake in PT)	23,3%	361	136	356
Synergies	23,3%	393	393	393
Contax	12,2%	*56*	*56*	56
TOTAL		**2.710**	**2.485**	**2.705**
OI's shareholders (excl. PT) Position				
Oi (excl. stake in PT)	76,8%	1.190	448	1.174
Synergies	76,8%	1.297	1.297	1.297
TOTAL		**2.488**	**1.746**	**2.471**

CorpCo's profile and associated risk level is also distinct. CorpCo is a Brazilian company with exposure to Portugal and other countries (namely Angola), with a lower dividend policy and where shareholder return heavily depends on stock price evolution and, indirectly, on the turnaround and growth opportunities of its Brazilian operation. CorpCo shares shall be primarily quoted in BRL and may face the advantages and disadvantages of belonging to an emerging economy.

On the next figure is presented differences in PT's shareholders position before and after the merger.

Figure 15

Comparison of PT and CorpCo equity profiles

values in 10^6 Euros	Before Merger	After Merger
Ownership	100% of PT Assets + 23,3% of Oi	~ 38% CorpCo
Market Cap (estimated)	2.647	2.705
Annual announced dividends (estimated)	86	58
Main markets	Portugal	Portugal and Brazil
Other relevant markets	Brazil & Angola	Angola
Underlying key risks	Portuguese macroeconomic environment, increasing competetion in Portuguese telecom sector, liquidity of stake held on Unitel and respective dividends, etc.	Portuguese macroeconomic environment, Brazilian macroeconomic environment, increasing competetion in Portuguese telecom sector, liquidity of stake held on Unitel and respective dividends, Euro / BRL exchange rate evolution, sucess of proposed turnaround, Oi's profitability and cash flow generation, etc..

Given the arguments previously described, it can not be concluded that the merger is neutral from a PT shareholders' point of view – not only it may originate a loss itself, but it will also mean becoming an owner of a different and riskier asset.

6. Conclusions

The objectives for the Work Project were: i) assess the accuracy of the value proposed for what was designated as "PT Assets", e.g., all PT's assets and liabilities with exclusion of stakes held in Oi and in Contax; ii) analyze if the merger was neutral, beneficial or prejudicial to PT's shareholders, considering Oi's market capitalization at merger announcement date and exchange terms proposed. Both objectives were addressed considering only public information released before and within the 6 months period that followed merger's announcement. This deliberated constraint was taken because this was the period where PT's shareholders could had sold their stake on the "old " and pre-merger PT. As stated and explained on the last two chapters, the Work Project derives the following conclusions for the objectives proposed:

- Regarding the accuracy of the value proposed for "PT Assets" and due to information asymmetries, any analysis has limitations. Given the results obtained by applying the market multiples, a conclusion that they are not accurate can not be taken. From APV and implicit market capitalization, it can be however challenged if the all PT's specific aspects were duly considered.
- Regarding the neutrality of the merger for PT's shareholders, the conclusion is that there is no neutrality - not only the merger it may originate a loss itself, but it will also mean becoming an owner of a different and riskier asset.

7. Appendixes

Appendix A

Appendix A

PT & OI | Key information @ 31.12.13

OI	
Values in 10^6 BRL (except indicated otherwise)	
Stock Price (BRL)	
OIBR3 ON	3,61
OIBR4 PN	3,59
No. shares (million)	
OIBR3 ON	599
OIBR4 PN	1.198
No. outstanding shares (million)	
OIBR3 ON	515
OIBR4 PN	1.125
Market Capitalization	**5.898**
OIBR3 ON	1.858
OIBR4 PN	4.040
No. shares owned on PT (million)	90
Market Cap., excl. stake in PT	4.976
Net Debt (announced)	30.416
Enterprise Value, excl. stake in PT	**35.393**
EBITDA 2013	9.583
EBITDA - CAPEX 2013 E	3.206
Enterprise Value / EBITDA	3,7
Ent. Value / (EBITDA - CAPEX)	11,0
Debt / Equity	6,1
Net Debt / EBITDA	3,2
Net Debt / (EBITDA - CAPEX)	9,5

PT	
Values in 10^6 Euro (except indicated otherwise)	
Stock Price (Euro)	3,16
No. shares (million)	897
No. outstanding shares (million)	855
Market Capitalization	**2.702**
No. shares owned on OI	
OIBR3 ON	109
OIBR4 PN	267
Value of stake on Oi and Contax	467
Market Cap., excl. Oi and Contax	2.235
Net Debt, excl Oi and Contax (estimated)	5.708
Enterprise Value, excl. Oi and Contax	**7.942**
EBITDA 2013, excl. Oi and Contax	1.162
EBITDA - CAPEX 2013, excl Oi and Contax	573
Enterprise Value / EBITDA (excl. Oi Cont)	6,8
Ent. Value /(EBITDA-CAPEX (excl. Oi Cont))	13,9
Debt / Equity (excl. Oi Cont)	2,6
Net Debt / EBITDA (excl. Oi Cont)	4,9
Net Debt / (EBITDA - CAPEX (excl. Oi Cont))	10,0
Exchange rate Brazilian Real / Euro	3,25

Notes: 1) Net debt refers to captions "Net Debt" and, in the case of PT, also "After-tax unfunded PRB obligations" and stake on Oi holding companies net debt. The stakes held by PT on Oi and Contax were calculated using respective market capitalizations.

Appendix B

Appendix B

PT | Financial Statements

KPI	2012	1Q13	2Q13	3Q13	4Q13	2013
Values in 10^6 Euros ; % of Operating Revenues						
Operating revenues	**3.079**	**718**	**735**	**723**	**736**	**2.911**
Portugal	2.701	634	646	640	639	2.560
Other & Eliminations	378	83	89	83	96	352
Operating costs	1.789	428	439	428	454	1.749
EBITDA	**1.290**	**290**	**296**	**295**	**281**	**1.162**
EBITDA margin	41,9%	40,4%	40,3%	40,8%	38,2%	39,9%
Portugal	1.201	272	278	274	268	1.091
Other & Eliminations	89	18	18	22	13	71
Post retirement benefits	58	11	11	11	9	40
Depreciation and amortisation	765	182	184	177	183	726
Income from operations	**467**	**97**	**101**	**107**	**90**	**396**
Net income	**226**	**27**	**257**	**21**	**26**	**331**
EBITDA	**1.290**	**290**	**296**	**295**	**281**	**1.162**
Capex	661	120	159	131	179	589
Non-cash items	23	5	7	5	9	26
Change in working capital	-75	-101	-14	5	19	-91
Operating cash flow	**577**	**75**	**130**	**174**	**130**	**508**
Adjusted net debt	4.566	4.601	4.609	4.621	4.619	4.619
After-tax unfunded PRB obligations	625	604	695	653	738	738

Source: PT - Investor Relations

Appendix C

Appendix C

Oi | Financial Statements

KPI	2012	1Q13	2Q13	3Q13	4Q13	2013
Values in 10^6 BRL ; % of Operating Revenues						
Operating revenues	**25.169**	**7.041**	**7.073**	**7.099**	**7.209**	**28.422**
Operating costs	17.181	4.890	5.276	4.960	3.713	18.839
EBITDA	**7.988**	**2.151**	**1.797**	**2.139**	**3.496**	**9.583**
EBITDA margin	31,7%	30,5%	25,4%	30,1%	48,5%	33,7%
Depreciation and amortisation	3.228	1.016	1.088	1.092	1.083	4.278
Income from operations	**4.760**	**1.135**	**709**	**1.047**	**2.412**	**5.304**
Net income	**1.785**	**262**	**-124**	**172**	**1.183**	**1.493**
Capex	6.377	1.817	1.506	1.540	1.515	6.377
Change in working capital	1.294	597	1.750	-636	-369	1.342
Asset Disposals	0	0	1.061	0	687	1.748
Adjusted net debt	**25.068**	**27.495**	**29.489**	**29.295**	**30.416**	**30.416**

Source: Oi - Investor Relations

Appendix D

Appendix D

Contax | Financial Statements

KPI	2012	1Q13	2Q13	3Q13	4Q13	2013
Values in 10^6 BRL						
Revenues	**3.620**	**884**	**906**	**936**	**892**	**3.618**
EBITDA	**368**	**90**	**77**	**94**	**142**	**404**
EBIT	161.665	39.067	28.302	40.471	88.526	196.366
Net Income	44.527	-1.651	4.742	23.855	75.311	102.257
Capex	147	15	35	36	114	200
Net Debt	**677**	**-729**	**-747**	**-749**	**-776**	**776**
Market Capitalization				**1.348**	**1.383**	**1.383**

Source: Contax - Investor Relations

Appendix E

Appendix E

PT Domestic Business | Peers Information

Sector: Telecom Carriers Europe | Source: Bloomberg. Data as of 06.01.14 | Unit: 10^6 Euros

Company	Market Capitalization	Net Debt	Enterprise Value	Sales	EBITDA	CAPEX	EV / EBITDA	EV / [EBITDA-CAPEX]	Net Debt / Market Capitalization	Net Debt / EBITDA	EBITDA (% Sales)	CAPEX (% Sales)
Vodafone Group PLC	137.813	33.849	167.443	54.573	16.902	5.729	9,9	15,0	0,2	2,0	31,0%	10,5%
Deutsche Telekom AG	54.326	38.568	102.951	58.169	17.728	6.312	5,8	9,0	0,7	2,2	30,5%	10,9%
Telefonica SA	53.292	55.134	109.227	62.356	21.231	9.481	5,1	9,3	1,0	2,6	34,0%	15,2%
BT Group PLC	36.777	10.144	46.896	22.412	7.300	3.046	6,4	11,0	0,3	1,4	32,6%	13,6%
TeliaSonera AB	25.806	7.198	33.146	12.055	4.022	1.803	8,2	14,9	0,3	1,8	33,4%	15,0%
Telenor ASA	25.734	5.629	31.600	13.604	5.332	2.259	5,9	10,3	0,2	1,1	39,2%	16,6%
Orange SA	23.519	30.752	55.547	43.515	12.374	6.763	4,5	9,9	1,3	2,5	28,4%	15,5%
Swisscom AG	19.820	6.798	26.696	9.446	3.408	2.125	7,8	20,8	0,3	2,0	36,1%	22,5%
VimpelCom Ltd	16.097	15.719	32.764	17.946	7.601	3.024	4,3	7,2	1,0	2,1	42,4%	16,9%
MegaFon OAO	14.709	3.020	NA	6.834	2.956	1.170	N.A.	N.A.	0,2	1,0	43,3%	17,1%
Mobile Telesystems OJSC	14.367	5.141	18.334	9.677	3.812	2.057	4,8	10,4	0,4	1,3	39,4%	21,3%
Telecom Italia SpA	13.809	31.549	47.741	29.503	11.645	3.201	4,1	5,7	2,3	2,7	39,5%	10,8%
Koninklijke KPN NV	10.522	12.610	20.211	12.409	4.528	1.780	4,5	7,4	1,2	2,8	36,5%	14,3%
Iliad SA	8.918	1.064	9.965	3.153	911	964	10,9	N.A.	0,1	1,2	28,9%	30,6%
Turkcell Iletisim Hizmetleri A	8.221	-1.697	6.494	4.542	1.401	585	4,6	8,0	-0,2	-1,2	30,9%	12,9%
Belgacom SA	7.195	1.691	9.187	6.415	1.785	773	5,1	9,1	0,2	0,9	27,8%	12,0%
Turk Telekomunikasyon AS	7.116	2.156	9.792	5.492	2.135	1.015	4,6	8,7	0,3	1,0	38,9%	18,5%
Rostelecom OJSC	6.507	5.036	11.283	8.052	2.992	2.285	3,8	16,0	0,8	1,7	37,2%	28,4%
TDC A/S	5.747	3.079	8.827	3.508	1.399	345	6,3	8,4	0,5	2,2	39,9%	9,8%
Tele2 AB	3.723	1.773	4.687	5.025	1.192	428	3,9	6,1	0,5	1,5	23,7%	8,5%
TalkTalk Telecom Group PLC	3.594	466	4.160	2.051	420	86	9,9	12,5	0,1	1,1	20,5%	4,2%
Elisa OYJ	3.238	839	4.259	1.553	500	189	8,5	13,7	0,3	1,7	32,2%	12,2%
Telekomunikacja Polska SA	3.091	1.171	4.192	3.384	1.194	558	3,5	6,6	0,4	1,0	35,3%	16,5%
Portugal Telecom SGPS SA	3.045	7.711	11.318	6.393	2.210	1.510	5,1	16,2	2,5	3,5	34,6%	23,6%
Telekom Austria AG	2.432	3.196	5.762	4.330	1.456	728	4,0	7,9	1,3	2,2	33,6%	16,8%
Average	**20.377**	**11.304**	**32.603**	**16.256**	**5.457**	**2.329**	**5,9**	**10,6**	**0,7**	**1,7**	**34,0%**	**15,8%**
Median	10.522	5.141	14.826	8.052	2.992	1.780	5,1	9,3	0,4	1,7	34,0%	15,2%

Appendix F

Appendix F

Oi | Peers Information

Company	Market Capitalization	Net Debt	Enterprise Value	Sales	EBITDA	CAPEX	EV / EBITDA	EV / [EBITDA-CAPEX]	Net Debt / Market Capitalization	Net Debt / EBITDA	EBITDA (% Sales)	CAPEX (% Sales)
Latin American Telecom Companies | Source: Bloomberg. Data as of 09.03.14 | Unit: 10^6 Euros												
America Movil	49.862	24.922	74.784	42.998	14.038	6.501	5,3	9,9	0,50	1,78	32,6%	15,1%
OI	2.014	10.080	12.095	8.727	2.942	1.835	4,1	10,9	5,00	3,43	33,7%	21,0%
TIM Participações	8.635	-175	8.460	6.119	1.599	1.093	5,3	16,7	NA	NA	26,1%	17,9%
Telefonica Brazil	14.726	678	15.404	10.672	3.250	1.794	4,7	10,6	0,05	0,21	30,5%	16,8%
Telecom Argentina	3.096	-683	2.413	2.152	639	240	3,8	6,0	NA	NA	29,7%	11,1%
Empresa Nacional Telecomunicações (Chile)	1.904	1.104	3.008	2.132	675	607	4,5	NA	0,58	1,64	31,7%	28,5%
Telefonica del Peru	2.299	462	2.761	2.275	764	352	3,6	6,7	0,20	0,60	33,6%	15,5%
Telefonica Chile	653	450	1.103	903	344	270	3,2	14,8	0,69	1,31	38,1%	29,9%
Average	**10.399**	**4.605**	**15.003**	**9.497**	**3.032**	**1.586**	**4,3**	**10,8**	**1,2**	**1,5**	**32,0%**	**19,5%**
Median	2.697	570	5.734	4.197	1.182	850	4,3	10,6	0,5	1,5	32,2%	17,3%

Appendix G

Appendix G

PT Domestic Business | Beta Unlevered

Company	Net Debt/Equity (X)	Adj Beta	Effective Tax Rate (%)	Beta Unlevered
Sector: Telecom Carriers Europe | Source: Bloomberg. Data as of 06.01.14				
Vodafone Group PLC	0,3	0,64	79,3	0,61
Deutsche Telekom AG	1,3	0,81	N.A.	N.A.
Telefonica SA	1,8	1,08	24,9	0,46
BT Group PLC	N.A.	0,85	16,4	N.A.
TeliaSonera AB	0,6	0,88	13,5	0,59
Telenor ASA	0,6	0,77	14,4	0,51
Orange SA	1,2	0,91	52,7	0,59
Swisscom AG	1,6	0,60	18,7	0,26
VimpelCom Ltd	1,5	N.A.	31,4	N.A.
MegaFon OAO	1,0	0,97	23,1	0,55
Mobile Telesystems OJSC	1,2	N.A.	35,9	N.A.
Telecom Italia SpA	1,5	0,98	N.A.	N.A.
Koninklijke KPN NV	1,8	0,71	28,0	0,31
Iliad SA	0,6	0,34	40,6	0,25
Turkcell Iletisim Hizmetleri A	-0,3	0,59	20,3	0,79
Belgacom SA	0,6	0,69	19,5	0,47
Turk Telekomunikasyon AS	1,4	0,65	23,0	0,31
Rostelecom OJSC	0,8	0,85	20,0	0,52
TDC A/S	1,1	0,67	13,0	0,34
Tele2 AB	0,4	0,68	28,7	0,53
TalkTalk Telecom Group PLC	1,3	0,56	18,0	0,27
Elisa OYJ	1,2	0,79	22,5	0,41
Telekomunikacja Polska SA	0,4	0,63	15,9	0,48
Portugal Telecom SGPS SA	3,2	0,82	31,2	0,26
Telekom Austria AG	3,4	0,82	57,5	0,33
Average	**1,2**	**0,75**	**28,2**	**0,44**
Median	1,2	0,77	23,0	0,46

Appendix H

Appendix H

Oi | Beta Unlevered

Company	Net Debt/Equity (X)	Adj Beta	Effective Tax Rate (%)	Beta Unlevered
Latin American Telecom Companies | Source: Bloomberg. Data as of 06.01.14				
America Movil	2,1	0,81	25,8	0,31
OI	2,8	1,00	29,6	0,33
TIM Participações	0,0	0,70	20,3	0,72
Telefonica Brazil	0,1	0,54	41,4	0,52
Telecom Argentina	NA	0,97	29,5	N.A.
Empresa Nacional Telecomunicações (Chile)	0,9	0,57	16,9	0,33
Telefonica del Peru	0,3	0,61	34,9	0,50
Telefonica Chile	0,5	0,36	43,8	0,28
Average	**1,0**	**0,7**	**30,3**	**0,43**
Median	0,5	0,7	29,5	0,33

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