



CATÓLICA  
LISBON  
SCHOOL OF BUSINESS & ECONOMICS

# Equity Research

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Oi S.A.

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in Business Administration, at the Católica Lisbon School of Business & Economics,  
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# Company Note

## Oi - Telecoms

**Investment Thesis: Capex plans pose several risks to a company that is lagging its competitors**

**The company will struggle to successfully implement its new investment plan.** On one hand I believe that the company is minimizing its Capex needs. On the other hand, the company is already highly leveraged and this program will increase further its financing needs.

**Both classes of shares deserve an *underweight* recommendation,** with a price target of BRL7.38 for the Common and BRL5.47 for the Preferred shares for YE12. I have used a WACC of 12.8% for the Brazilian Operations.

**The company should continue outperforming its peers, gaining market-share, both on Mobile as in the Residential sector.** Its plan to start targeting high-customers has high risks, as it forces the company to continue investing on its infrastructures. On the other hand, this plan exposes the company to other risks. The company is the largest fixed line phone company in the country. Instead of leveraging its market position, if the company persists with its plan it could be neglecting the opportunity of pushing their fixed-line clients to Paid-TV. The corporate segment should also continue being negatively affected by increasing competition.

**Underweight**

16 October 2012

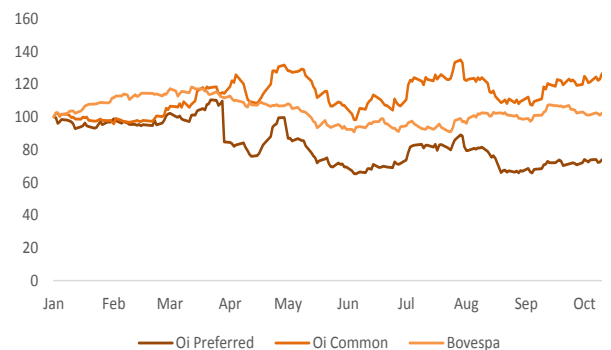
Oi Common Target Price BRL7.38

Current Price BRL10.47

Oi Preferred Target Price BRL5.47

Current Price BRL8.46

2012 YTD Stock Performance



Source: Bloomberg

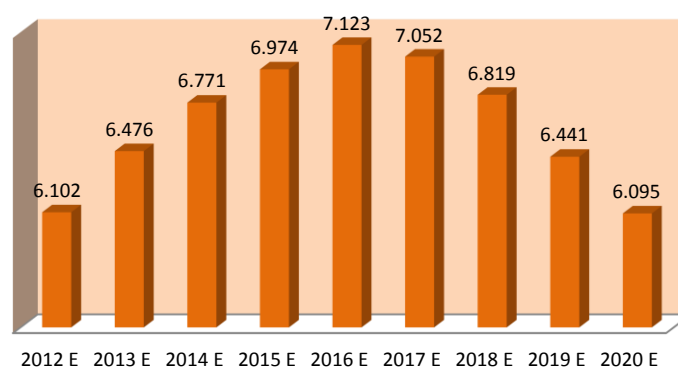
| Oi's Valuation - SoP             |                 |
|----------------------------------|-----------------|
| Oi Operations EV (BRL mn)        | 33,884.6        |
| Net Debt (BRL mn)                | 25,369.4        |
| Portugal Telecom (BRL mn)        | 1,436.7         |
| <b>Equity Value (BRL mn)</b>     | <b>35,321.3</b> |
| <b>Target Price Oi BR4 (BRL)</b> | <b>5.47</b>     |
| Upside (Downside)                | -35.4%          |
| <b>Target Price Oi BR3 (BRL)</b> | <b>7.38</b>     |
| Upside (Downside)                | -29.5%          |

Analyst: José Sarmiento

**At Portugal Telecom, news-flows continue to be positive**, as the company is the only integrated operator in the country. Despite the weak economic backdrop, we believe that the position of Portugal Telecom should continue to be supported by its revenues resilience.

## Oi: Summary of Financials

### Oi: Estimated Capex Needs (BRL mn)



### Oi's Total Revenues

| BRL (mn)          | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Residential       | 9,913.4         | 10,454.3        | 10,830.8        | 11,227.6        | 11,624.3        | 11,918.7        | 12,217.1        | 12,519.6        | 12,826.2        |
| Personal Mobility | 8,941.3         | 9,843.7         | 10,641.4        | 11,541.9        | 12,478.9        | 13,399.5        | 14,315.3        | 15,169.8        | 15,878.0        |
| Corporate         | 8,321.0         | 8,321.0         | 8,518.0         | 8,709.1         | 8,890.1         | 9,082.8         | 9,293.5         | 9,505.8         | 9,726.6         |
| Others            | 581.4           | 546.5           | 513.7           | 482.9           | 453.9           | 426.7           | 413.9           | 401.4           | 389.4           |
| <b>Total</b>      | <b>27,757.0</b> | <b>29,165.4</b> | <b>30,503.8</b> | <b>31,961.4</b> | <b>33,447.3</b> | <b>34,827.7</b> | <b>36,239.8</b> | <b>37,596.7</b> | <b>38,820.3</b> |

### Oi's P&L

| BRL (mn)                                       | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Net Operating Revenues                         | 27,757.0        | 29,165.4        | 30,503.8        | 31,961.4        | 33,447.3        | 34,827.7        | 36,239.8        | 37,596.7        | 38,820.3        |
| Operating Expenses                             | 19,438.7        | 20,194.7        | 20,963.7        | 21,783.8        | 22,619.8        | 23,439.4        | 24,297.4        | 25,152.3        | 25,982.2        |
| <b>EBITDA Pro-Forma</b>                        | <b>8,318.3</b>  | <b>8,970.7</b>  | <b>9,540.1</b>  | <b>10,177.6</b> | <b>10,827.5</b> | <b>11,388.3</b> | <b>11,942.3</b> | <b>12,444.4</b> | <b>12,838.1</b> |
| <b>EBITDA Consolidated</b>                     | <b>7,455.8</b>  | <b>8,970.7</b>  | <b>9,540.1</b>  | <b>10,177.6</b> | <b>10,827.5</b> | <b>11,388.3</b> | <b>11,942.3</b> | <b>12,444.4</b> | <b>12,838.1</b> |
| Depreciation and Amortization                  | 4,222.1         | 4,832.2         | 5,029.4         | 5,238.4         | 5,446.8         | 5,648.0         | 5,816.5         | 5,936.8         | 5,997.3         |
| <b>EBIT</b>                                    | <b>3,233.8</b>  | <b>4,138.5</b>  | <b>4,510.7</b>  | <b>4,939.2</b>  | <b>5,380.8</b>  | <b>5,740.3</b>  | <b>6,125.9</b>  | <b>6,507.6</b>  | <b>6,840.7</b>  |
| <b>Net Financial Income</b>                    | <b>-1,914.3</b> | <b>-1,966.1</b> | <b>-2,162.4</b> | <b>-2,348.1</b> | <b>-2,443.5</b> | <b>-2,596.0</b> | <b>-2,708.1</b> | <b>-2,772.4</b> | <b>-2,778.6</b> |
| <i>Average Cost of Debt</i>                    | 11.0%           | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            |
| <b>EBT</b>                                     | <b>1,319.4</b>  | <b>2,172.4</b>  | <b>2,348.3</b>  | <b>2,591.1</b>  | <b>2,937.3</b>  | <b>3,144.3</b>  | <b>3,417.8</b>  | <b>3,735.2</b>  | <b>4,062.1</b>  |
| Taxes  | 329.6           | 651.7           | 704.5           | 777.3           | 881.2           | 943.3           | 1,025.3         | 1,120.6         | 1,218.6         |
| <i>% Taxes</i>                                 | 25.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           |
| Net Income before non-controlling shareholders | 989.9           | 1,520.7         | 1,643.8         | 1,813.7         | 2,056.1         | 2,201.0         | 2,392.4         | 2,614.6         | 2,843.5         |
| Non-Controlling Shareholders                   | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             |
| <b>Net Income</b>                              | <b>983.6</b>    | <b>1,514.4</b>  | <b>1,637.5</b>  | <b>1,807.4</b>  | <b>2,049.8</b>  | <b>2,194.7</b>  | <b>2,386.1</b>  | <b>2,608.3</b>  | <b>2,837.2</b>  |

**Oi's Balance Sheet**

| BRL (mn)                                     | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Current Assets</b>                        | <b>18,615.2</b> | <b>18,813.7</b> | <b>19,709.5</b> | <b>20,746.3</b> | <b>22,616.3</b> | <b>22,331.4</b> | <b>21,902.1</b> | <b>22,206.2</b> | <b>23,165.1</b> |
| Cash and Cash Equivalents                    | 4,341.2         | 4,266.5         | 4,783.0         | 5,406.9         | 6,855.8         | 6,179.8         | 5,350.3         | 5,269.9         | 5,882.1         |
| Financial Investments                        | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         |
| Derivatives                                  | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           |
| Accounts Receivable                          | 5,718.6         | 5,914.1         | 6,185.5         | 6,481.1         | 6,782.4         | 7,062.3         | 7,348.6         | 7,623.8         | 7,871.9         |
| Recoverable Taxes                            | 1,993.5         | 2,061.6         | 2,156.2         | 2,259.2         | 2,364.3         | 2,461.9         | 2,561.7         | 2,657.6         | 2,744.1         |
| Inventories                                  | 278.9           | 288.5           | 301.7           | 316.1           | 330.8           | 344.5           | 358.5           | 371.9           | 384.0           |
| Assets in Escrow                             | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         |
| Other Current Assets                         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         |
| <b>Non Current Assets</b>                    | <b>58,851.1</b> | <b>60,878.3</b> | <b>62,985.2</b> | <b>65,118.4</b> | <b>67,199.8</b> | <b>68,979.7</b> | <b>70,366.1</b> | <b>71,238.1</b> | <b>71,667.1</b> |
| Long Term                                    | 18,428.3        | 18,808.9        | 19,170.7        | 19,564.6        | 19,966.1        | 20,339.2        | 20,720.8        | 21,087.5        | 21,418.2        |
| Taxes  | 7,501.3         | 7,881.9         | 8,243.7         | 8,637.6         | 9,039.1         | 9,412.2         | 9,793.8         | 10,160.5        | 10,491.2        |
| Financial Investments                        | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            |
| Assets in Escrow                             | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         |
| Derivatives                                  | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           |
| Other Assets                                 | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         |
| Investments                                  | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            |
| Fixed Assets                                 | 24,145.1        | 25,130.5        | 26,174.9        | 27,215.8        | 28,221.2        | 29,063.1        | 29,664.5        | 29,966.9        | 30,025.7        |
| <i>% of Intangible assets + Fixed Assets</i> | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    | <i>60.0%</i>    |
| Intangible Assets                            | 16,199.7        | 16,860.9        | 17,561.6        | 18,260.0        | 18,934.5        | 19,499.4        | 19,902.8        | 20,105.8        | 20,145.2        |
| <i>% of Intangible assets + Fixed Assets</i> | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    | <i>40.2%</i>    |
| <b>Total Assets</b>                          | <b>77,466.4</b> | <b>79,692.1</b> | <b>82,694.7</b> | <b>85,864.7</b> | <b>89,816.1</b> | <b>91,311.1</b> | <b>92,268.1</b> | <b>93,444.3</b> | <b>94,832.2</b> |
| <b>Current Liabilities</b>                   | <b>14,412.5</b> | <b>14,734.0</b> | <b>15,307.2</b> | <b>15,787.1</b> | <b>16,436.4</b> | <b>16,802.5</b> | <b>17,101.3</b> | <b>17,398.9</b> | <b>17,687.8</b> |
| Suppliers                                    | 4,152.1         | 4,190.1         | 4,349.7         | 4,519.8         | 4,693.3         | 4,863.3         | 5,041.4         | 5,218.7         | 5,390.9         |
| Loans and Financing                          | 3,297.3         | 3,544.4         | 3,837.3         | 4,023.7         | 4,367.2         | 4,444.7         | 4,444.7         | 4,444.7         | 4,444.7         |
| <i>% of Gross Debt</i>                       | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    | <i>10.3%</i>    |
| Financial Instruments                        | 141.6           | 152.2           | 164.7           | 172.7           | 187.5           | 190.8           | 190.8           | 190.8           | 190.8           |
| <i>% of Gross Debt</i>                       | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     | <i>0.4%</i>     |
| Others                                       | 6,821.6         | 6,847.3         | 6,955.5         | 7,070.8         | 7,188.4         | 7,303.7         | 7,424.4         | 7,544.6         | 7,661.3         |
| Payroll and Related Accruals                 | 535.0           | 539.9           | 560.5           | 582.4           | 604.7           | 626.7           | 649.6           | 672.5           | 694.6           |
| Provisions                                   | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         |
| Taxes  | 2,279.6         | 2,300.4         | 2,388.0         | 2,481.4         | 2,576.7         | 2,670.0         | 2,767.8         | 2,865.2         | 2,959.7         |
| Dividends                                    | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           |
| Other Accounts                               | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         |
| <b>Non-Current Liabilities</b>               | <b>42,735.3</b> | <b>45,167.9</b> | <b>48,012.2</b> | <b>49,924.6</b> | <b>53,240.1</b> | <b>54,181.6</b> | <b>54,445.6</b> | <b>54,708.5</b> | <b>54,963.8</b> |
| Loans and Financing                          | 29,209.1        | 31,398.3        | 33,992.9        | 35,644.7        | 38,687.8        | 39,373.8        | 39,373.8        | 39,373.8        | 39,373.8        |
| <i>% of Gross Debt</i>                       | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   | <i>91.00%</i>   |
| Financial Instruments                        | 146.6           | 157.6           | 170.6           | 178.9           | 194.2           | 197.6           | 197.6           | 197.6           | 197.6           |
| <i>% of Gross Debt</i>                       | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     | <i>0.5%</i>     |
| Taxes  | 5,979.5         | 6,212.1         | 6,448.7         | 6,700.9         | 6,958.1         | 7,210.2         | 7,474.1         | 7,737.1         | 7,992.4         |
| Contingency Provisions                       | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         |
| Provisions for the Pension Fund              | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           |
| Outstanding Authorizations                   | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         |
| Other Accounts Payable                       | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           |
| <b>Total Liabilities</b>                     | <b>57,147.8</b> | <b>59,901.9</b> | <b>63,319.3</b> | <b>65,711.7</b> | <b>69,676.5</b> | <b>70,984.2</b> | <b>71,546.8</b> | <b>72,107.4</b> | <b>72,651.6</b> |
| <b>Shareholder's Equity</b>                  | <b>20,318.6</b> | <b>19,790.1</b> | <b>19,375.4</b> | <b>20,153.0</b> | <b>20,139.6</b> | <b>20,327.0</b> | <b>20,721.3</b> | <b>21,336.9</b> | <b>22,180.6</b> |
| Controlling Interest                         | 20,275.6        | 19,747.1        | 19,332.4        | 20,110.0        | 20,096.6        | 20,284.0        | 20,678.3        | 21,293.9        | 22,137.6        |
| Minority Interest                            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            |
| <b>Equity + Liabilities</b>                  | <b>77,466.4</b> | <b>79,692.1</b> | <b>82,694.7</b> | <b>85,864.7</b> | <b>89,816.1</b> | <b>91,311.1</b> | <b>92,268.1</b> | <b>93,444.3</b> | <b>94,832.2</b> |

**FCFF Details - Domestic Operations**

| BRL (Mn)                              | 2012 E        | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         | Terminal value |
|---------------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| EBITDA                                | 8,318.3       | 8,970.7        | 9,540.1        | 10,177.6       | 10,827.5       | 11,388.3       | 11,942.3       | 12,444.4       | 12,838.1       |                |
| Capex                                 | 6,102.4       | 6,475.7        | 6,771.3        | 6,974.4        | 7,123.5        | 7,052.1        | 6,819.3        | 6,441.2        | 6,095.5        |                |
| Taxes                                 | 329.6         | 651.7          | 704.5          | 777.3          | 881.2          | 943.3          | 1,025.3        | 1,120.6        | 1,218.6        |                |
| Change in working capital/other flows | 1,997.1       | 357.5          | 236.7          | 269.2          | 274.4          | 226.7          | 219.1          | 190.6          | 133.2          |                |
| <b>FCFF</b>                           | <b>-110.8</b> | <b>1,485.9</b> | <b>1,827.7</b> | <b>2,156.8</b> | <b>2,548.5</b> | <b>3,166.1</b> | <b>3,878.6</b> | <b>4,692.0</b> | <b>5,390.8</b> | <b>5,677.7</b> |

## **Abstract**

Valuation is a fundamental instrument of the Modern World. It provides one of the foundations of society, as it establishes what is fair and what it isn't for a certain asset. In Equity Research, one of the major and most complex fields of Valuation we must value a company relative to its industry and geographic location while trusting the data it makes available. This Thesis intends to bridge the theory and the practice of Equity Valuation, valuing Oi's Preferred and Common Shares. Oi is one of the major Telecom companies in Brazil. After my research I arrived at a fair value price of BRL5.47 and BRL7.38 for each, leading to an Underweight recommendation for both.

## Preface

My path in Finance has been extremely demanding but, at the same time, extremely rewarding. For a competitive person like me, I am continuously motivated by the constant challenges I must face and the sense of victory each time I overcome them. On this path there are several people to whom I am very grateful – Professor Tudela Martins, for his availability and untiring support on the elaboration of this Thesis; to Ricardo Lourenço, for teaching me everything I know about Equity Research; to Albino Oliveira, my colleague and teacher who guides me every day; to Gonçalo and Pedro Pereira Coutinho for their confidence in me and the opportunities they provide me at FINCOR – SOCIEDADE CORRETORA, S.A.; to all my colleagues at FINCOR – SOCIEDADE CORRETORA, with whom I spend the majority of my time; to Paulo Silva and the rest of the Alumbrados Group, for every discussion we have about the markets and life in general, as in this sector it is almost impossible to separate the two; to Professors Paulo Gonçalves Marcos and Isabel Viegas for always believing in my potential; to Marília Cabral who provided my first introduction to the Investment Banking World and helped me to discover my professional vocation; to Michael Castelhana, Duarte Cabral and the rest of the Research Department in Banco Best, who were both colleagues and Professors on my first step in Investment Banking; to Leonardo Mantuano, Investor Relations at Oi; to Andreia Alexandre, Portugal Telecom’s IR; Helena Almeida, Sonaecom’s IR and Henrique Rosado, Zon’s IR, for helping me understand the telecom sector; and finally to all the family and friends that I have not mentioned previously for their support on this project and my life in general.

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## I – INTRODUCTION

The purpose of this thesis is to value Oi's Preferred and Ordinary Shares. The company is a leading Telecom Operator in Brazil, with both stocks listed in the São Paulo Stock Exchange.

Using a DCF-based Sum-of-the-Parts Valuation, I will provide guidance for the company's future earnings and I will establish a price target and a recommendation for both. I will compare my recommendations with those given by a well-known Investment Bank (UBS).

Prior to developing a valuation model of the company, we go over the literature that applies to the construction of our models, to guarantee that we are constructing a robust one. This is done in Chapter 2, where I discuss several forms of valuing a firm according to academic literature and explaining which one I will use on this valuation.

In Chapter 3, I discuss how the Brazilian economy is evolving and how its telecom industry is characterized. This is very important, as we can't make any assumptions without knowing what is happening in the economy and the industry.

In Chapters 4 and 5, I explain how I have constructed my model for valuing Oi's Preferred and Ordinary shares. I must stress that the model I have constructed intends to give the reader the possibility of rapidly reviewing its estimates and coming up with a new recommendation for the stocks when faced with new information about the company. I will compare my estimates and my model with those of UBS. My estimates will also be compared to the company's guidance.

In Chapter 6, I value Portugal Telecom, considering that company has a participation of 10% in Oi. This was a complex process, due to the exposure that the company has to different countries.

## II – Literature Review

### 1 – Brief Overview

Company Valuation is indispensable for someone who intends to work in Corporate Finance because “valuing the company and its business units helps identify sources of economic value creation and destruction within the company” (Fernandez 2007). The author states its importance for other purposes too, such as the valuing of operations, of listed companies (key to identifying investment opportunities), of public offerings (as happened recently with Facebook, which ended up with a market value below its IPO price after its third trading day), of inheritances and wills, of compensation schemes (to understand how managers should be compensated in a fair form) as well as the identification of value drivers in company and strategic planning. Several other authors as Goedhart (2005) state the importance of Valuation in enabling management to maximize shareholder value. This should be the key reason for using Valuation – to tell us how to create value for the shareholder. The author also writes about other groups that are may be interested in the subject besides equity holders such as corporate finance practitioners, group investors, portfolio managers and as in my case, security analysts.

Valuation is also important for Corporate Governance, as was said previously. It enables CEOs to “*focus on long-term value creation, confident that their stock’s market price will eventually reflect their efforts*” (Goedhart 2005). On the other hand, managers that feel pressure to achieve short-term results at the expense of long term value creation may use these models to get a fair evaluation of their performance (as stock markets are focused on short-term results). By providing this measure of the performance of a company’s manager, he may then be compensated properly.

As Goedhart (2005) reminds us, markets are inefficient, not reflecting a company’s intrinsic value. But deviations from it should be short-term in nature. From time to time there are bubbles as people forget that the value of a stock should come from its intrinsic value.

Olivier Blanchard developed a theory about this concept, where he defends that people do not mind buying something that is overvalued if they know that they will sell it at a higher price in the future. This led him to say that the value of an asset is its Fundamental Value plus the bubble premium. Part of this theory is applicable to Financial Markets, although it neglects that the price of an asset might be at a lower price than its intrinsic value (if not, no one would invest in markets, as everybody would eventually know that all the markets are overvalued). But the truth is that bubbles occur from time to time. The LBO or the Internet Bubble were recent cases of this. Or even the Tulip Mania during the 17th century. But after these bubbles exploded, the market corrected to its intrinsic value. We should then use equity valuation to discover the intrinsic value of a stock. But what is the intrinsic value? According to Damodaran (2006) it is the limit price that someone would pay for an asset in the event that he knew everything: had perfect information of the markets and a perfect model to calculate the value of the asset.

Valuation will enable us to buy the right stocks, giving those companies the capacity to finance their projects, which will create healthy companies and spill dividends into the economy. And this is what I intend to do with this work. I will value Oi SA, and establish a recommendation to both for its preferred and common shares.

The existing valuation methods are grouped according to their authors. Fernández (2007) basis his valuation on 6 different groups, while Damodaran (2006) basis his valuation on 4 different groups – Discounted Cash-Flow Valuation, Liquidation and Accounting Valuation, Relative Valuation and Contingent Claim Valuation. I will use the annotation of the last author.

| Liquidation and Accounting Valuation | Relative Valuation     |                              | Discounted Cash Flow Valuation |                            | Contingent Claim Valuation |
|--------------------------------------|------------------------|------------------------------|--------------------------------|----------------------------|----------------------------|
|                                      | Equity Valuation       | Firm Valuation               | Equity Valuation               | Firm Valuation             |                            |
| Book Value                           | Price Earnings Ratio   | EV to EBITDA                 | Free Cash Flow to the Equity   | Free Cash Flow to the Firm | Binomial Model             |
| Liquidation Value                    | Value of the Dividends | EV to EBIT                   | Dividend Discount Model        | Excess Return Models       | Black and Scholes          |
| Adjusted Book Value                  | Price to Book Value    | Sales Multiples              | Earnings Models                | Capital Cash Flow          |                            |
| Substantial Value                    |                        | Internet Companies Multiples |                                |                            |                            |

Figure 1

Different methods use different assumptions and valuations differ for that reason. An advantage to using different models is that we can compare them directly *“to establish precisely which assumptions cause the estimates to differ”* (Young 1999). If we used the same assumptions for all methods, the results would be mathematically equivalent. On the other hand, when using the same valuation models, results may differ, as assumptions differ accordingly with the person who makes them. Due to that, different methods will be applied to different companies. As Fernandez (2007) reminds us, each buyer and each seller have different interests, economies of scale and utilities. Due to that prices will differ accordingly with the person.

I would like to stress that Valuation methods may value the Equity of the Company directly or indirectly. The last is done by valuing the whole set of assets in the Company and then discounting its Debt.

## **2 – Liquidation and Accounting Valuation**

According to Fernández (2007), using this method a *“company’s value lies in its balance sheet”*. The company is valued from a static point of view, which *“does not take into account the company’s possible future evolution or money’s temporary value”*. On the positive side, using this model the analyst avoids making forecasts, which depend on relative variables. The criticism that this method is static is true for the majority of industries but it isn’t static for the Banking Industry. But as I am valuing a Telecom company, the problem persists. This method is also used for constructing the Price-to Book-Ratio, which is important in Equity Research for some industries. But again, as I am valuing a Telecom, I won’t develop this method any further.

## **3 – Contingent Valuation**

Flexibility is really important for valuating companies in the Commodities sector as *“the value of keeping one’s options open is clearest in investment-intensive industries, such as oil*

*extraction, in which the licensing, exploration, appraisal, and development processes fall naturally into stages, each pursued or abandoned according to the results of the previous stage” (Leslie 1997). “Our work in the energy sector reveals that a number of excellent performers do instinctively or intuitively view their investment opportunities as real options”.* On the other hand, using this method enables the use of valuation as a strategic tool. Using other valuation methods brings some problems as Copeland (1998) states. *”NPV and EP ignore an important reality: business decisions in many industries and situations can be implemented flexibly through deferral, abandonment, expansion, or in a series of stages that in effect constitute real options”.* So as others ignore flexibility, Contingent Valuation takes that into account.

The two main methods to calculate an Option are the Binomial Model and the Black-Scholes Model. But as Hull says, within the Binomial Model, *“as the time step becomes smaller, this model leads to the lognormal assumption for stock prices that underlies the Black-Scholes Model”.* This Model was developed by Robert Merton, Myron Scholes and Fischer Black, leading the first two to win a Nobel Prize in 1997 (Fischer Black had died two years before).

As said previously, I am not valuing a company in the Commodity Industry. Even so, this model could be used if Oi should pursue its infrastructures investments. But there are not enough details disclosed by the company to be able to calculate it. In an industry like Oil&Gas, it is easier to measure expected returns as time passes when there are no major investments in the development of an Oil Field/Well.

#### **4 – Relative Valuation**

It is the Valuation mechanism most used for valuing European companies (Fernández 2002). Most Investment Banking Researchers use it as part of their valuation.

Damodaran (2002) tells us that Relative Valuation assumes the market pricing of companies is efficient. The market can misprice one company, but overall, it prices correctly the sum of

all the companies. So, the Company will be valued accordingly with their “Peers” in the market and not accordingly with its Intrinsic Value.

Relative Valuation enables us *“to hold useful discussions about whether it is strategically positioned to create more value than other industry players”* (Goedhart 2005b) and allows us to *“identify differences between the firm valued and the firms it is compared with”* (Fernández 2002). This method tells us how our Company is comparing with others, being easy and quick to calculate. It will be useful to support our DCF valuation, as the last author says.

*“Valuation theory suggests that the efficacy of multiple-based techniques will depend on: (1) the choice of the accounting variable and (2) the judicious selection of comparable firms”* (Bhojraj 2003). It is really important how we compute the Peer Group for a Relative Valuation. There are some views that defend that we should use an industry-based peer group (Bali 2005) as it improves the stock valuation. On the other hand, Bhojraj (2003) tells us that we should select comparable firms using as our basis their Profitability, Growth and Risk Characteristics. Goedhart (2005b) defends that we should start by constructing a peer group with an industry-based approach, and then adjust to similar expectations of Growth and ROIC. According to this author, we have to look for differences in the same Industry as it does not make sense to compare companies with different prospects - *“The use of the industry average, however, overlooks the fact that companies, even in the same industry, can have drastically different expected growth rates, returns on invested capital, and capital structures”*. Goedhart (2005a), tells us that we should take into account the industry, the country where they operate, ROIC and growth.

Liu (2007) says that we should use a Harmonic Mean instead of a simple average in order to mitigate companies that have *“temporarily low values of earnings per share”*. Even so, the simple average is widely used on valuations and I will use it on my valuation.

And what data should we use to calculate the multiples? Should we use present data? Or forecasted data? Liu (2002) tells us that *“using forecasts improves performance over*

*multiples based on reported numbers*". Other authors such as Goedhart (2005b) defend the same point of view. We will follow the last.

Fernandez (2002) tells that *"P/E and the EV/EBITDA seem to be the most popular multiples for valuing firms"*. Anyway, according to the author, *"different multiples are meaningful in different contexts"*. Authors such as Goedhart (2005b) criticize P/E multiples because *"Although widely used, P/E multiples have two major flaws"*, it is affected by capital structure and earnings can be easily manipulated. In addition, earnings may include non-operating items, which can lead to ambiguous conclusions. The author proposes EV/EBITDA, because it *"is less susceptible to manipulation by changes in capital structure"*. The problem of the EV/EBITDA is that it doesn't take into account if a company is highly leveraged. I choose to use the first as I will be valuing Oi Common and Preferred stock. On the other hand, as I already know the company quite well, I am able to adjust earnings for possible extraordinary results.

## **5 – Discounted Cash-Flow Valuation**

We buy assets because we expect them to generate cash-flows in the future. *"The value of an asset is not what someone perceives it to be worth but it is a function of the expected cash flows on the asset"* (Damodaran 2006). This method has been practiced for centuries as the author notes. The problem of using this is that it will give us the intrinsic value of a company, when the market can be valuing the company in a totally different form. And on the other hand, as was said before, each analyst makes his own assumptions as they do not have access to all the information in the market. Due to all these reasons, the author tells us that using these methods are an *"act of faith"* and we believe that every asset has this issue. The main valuation methods are the Adjusted Present Value, Free Cash Flow to the Equity, Free Cash Flow to the Firm and Residual Valuation. In the first, we value the business first without the effects of debt, adding later the marginal effects of borrowing; in the second and third, we value the company discounting directly the cash-flows generated at the appropriate

discount rate that the cash-flow claimers demand; in the last, we value the company by the excess returns that we expect the company will generate from its investments.

These methods are getting increasingly popular as they view a company as cash-flow generator (Fernandez 2007). In the case of Telecoms, all the analysts that I have read use one of these models for valuing the company's that they follow (preferably FCFF or FCFE).

## 5.1 – Residual Valuation

These models have their roots on net present value (Damodaran2006). There are numerous versions of Residual Models, but here we will just consider the two most used, which are EVA and Dynamic ROE.

### 5.1.1 – Economic Value Added (EVA)

This is the most important model from Residual Valuation. It gives us *“a measure of surplus value created by an investment”* (Damodaran 2006). This model separates cash flows into normal and excessive return cash flows. The EVA formula is:

$$\begin{aligned} \text{Economic Value Added} &= (\text{Return on Capital invested} - \text{Cost of Capital}) * \text{Capital Invested} = \\ &\text{After-tax operating income} - \text{Cost of Capital} * \text{Capital invested} \end{aligned} \quad 1$$

According to the author, it just works as an extension of Net Present Value, as we can see by the formula bellow.

$$NPV = \sum_{t=1}^{t=n} \frac{EVA_t}{(1 + k_c)^t}$$

Where,  $K_c$  is equal to WACC. The value of a company is then the sum of capital invested (usually book value) plus the present value of excess return cash flows. If we want to

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<sup>1</sup> Damodaran (2006)

calculate the Equity of the Company, we will need to take the Debt from the result as this is an indirect method. This model is good to evaluate the Management Performance, but on other hand it requires several adjustments on the capital invested as we need to identify one-time events.

### 5.1.2 – Dynamic ROE

It is very similar to EVA, just differing from it because it is a direct method to calculate the Equity. This model enables us to measure the performance of the management to the company as we can easily do it by summing the excess return cash-flows. In order to create value for the shareholder, the company must have a higher ROE than its  $R_e$ . The formula is (Young 1999):

$$MV = BV_0 + \frac{VA_1}{(1+k)^1} + \dots + \frac{VA_n}{(1+k)^n} + \frac{TV}{(1+k)^n}$$

$$VA_1 = (ROE_1 - k_1) * BV_1$$

$$TV = BV_n^* + \frac{(ROE_n^* - k_n) * BV_{n+1}^*}{(k - g)}$$

Where K is cost of equity, BV is the Book Value of the Equity, TV is the terminal value and MV is the value of the Equity.

### 5.2 – Adjusted Present Value

Goedhart (2005a) recommends using the APV to value a company when its capital structure is expected to change. This usually happens with recently formed companies, highly leveraged companies and where Debt is expected to diminish in the future as it starts generating positive cash-flows. It happens with highly leveraged acquisitions, for e.g. a LBO, expecting to reduce debt in the future. This model follows the teachings of Modigliani &

Miller, which tell us that if there is a market with imperfections, by changing the capital structure of a company will change its own value.

$$\text{Adjusted Present Value} = \text{Enterprise Value as if the Company Was All-Equity Financed} + \text{Present Value of Tax Shields}$$

2

It separates the value of operations into two components: the value of a company assuming it's operations were all equity financed and the value of the tax shields that arise from the usage of Debt. The first part is discounted by the unlevered cost of equity. The question that arises is how to discount cash flows from tax shields. Usually used is  $R_d$  (cost of Debt) as long as the analyst thinks that the risk of tax-shields are the same as the risk of debt (Luehrman 1997a). The author tells us that *"APV always works when WACC does, but sometimes WACC doesn't"* and it gives information to managers that the WACC model does not provide. The problem is that it is a much more complicated model, and obliges us to forecast the future value of Debt for each period. As Boot (2007) says, *"if a firm has an optimal or target debt ratio then APV and CCF add little, if anything, to a conventional WACC valuation"*. This model obliges us to make more assumptions, as we need to forecast Debt levels, interest payments and financial distress costs (which are not easy to account). Because of this, the choice is a matter of simplicity and we should use a WACC model instead of the APV.

### 5.3 – Free Cash Flow

#### 5.3.1 – FCFF and FCFE

According to Goedhart (2005a), *"enterprise valuation models value the company's operating cash flows"*. They are equivalent to FCFE as *"Franco Modigliani and Merton Miller, postulated that the value of a company's economic assets must equal the value of the claims against those assets"*. So, *"if we want to value the equity (and shares) of a company, we have two choices. We can value the company's operations and subtract the value of all non-*

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<sup>2</sup> Goedhart (2005a)

*equity financial claims, or we can value the equity cash flows directly*". *"Both methods lead to identical results when applied correctly. The equity method is difficult to implement in practice; matching equity cash flows with the correct cost of equity is challenging"*. The author goes further in his recommendations and says that *"to value a company's equity, we recommend valuing the enterprise first and then subtracting the value of any non-equity financial claims"*. This *"method is especially valuable when extended to multi-business companies"*, and for companies where the Equity/Debt ratio is expected to be constant in the future, as it happens with Oi.

The FCFF formula is:

$$\text{Free Cash Flow to the Firm} = \text{After-Tax Operating Income} - (\text{Capex} - \text{Depreciation}) - \text{NWC} \quad 3$$

We must discount cash flow by the risk faced investors. The most used formula for WACC is:

$$\text{WACC} = D/V * K_d * (1-T) + E/V * K_e$$

Where D/V is the target level of debt to enterprise value using market-based values, E/V is the same target level but for equity,  $k_d$  is the cost of debt,  $k_e$  the cost of equity and T is company's marginal income tax rate.

Finally, the value of the operating assets (which we next should discount the value of the debt and adjust it to non-operating cash-flows) is:

$$\text{Value of Operating Assets of the firm} = \sum_{t=1}^{t=n} \frac{\text{FCFF}_t}{(1 + \text{WACC})^t} + \frac{[\text{FCFF}_{n+1}/(\text{WACC} - g_n)]}{(1 + \text{WACC})^n}$$

We have to discount the forecasted Net Debt for the end of the current year to have company's Equity value. According to Damodaran (2006), using this method *"captures both the tax benefits of borrowing and the expected bankruptcy costs"*. The author points out that this method has the advantage vs FCFE of not having to consider explicitly cash-flows related

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<sup>3</sup> Damodaran (2006)

to debt, while they have to be taken into account with FCFE (as we can see in the formula below):

Free Cash Flow to the Equity = Net Income + Depreciation - Capex - NWC - (New Debt Issued - Debt Repayments)

Besides the usage of FCFE instead of FCF, and of using  $R_e$  for discounting cash-flows (as from these were already taken other company claimers beside Equity owners) instead of WACC, all the rest is similar to the FCF method.

$$\text{Value} = \sum \frac{\text{FCFE}_t}{(1 + k_e)^t} + \frac{P_n}{(1 + k_e)^n}$$

Where  $\text{FCFE}_t$  is the Free Cash Flow to Equity in year T,  $P_n$  is the Terminal Value at the end of the extraordinary growth period,  $k_e$  is the cost of equity. The Terminal Value is calculated using the infinite growth rate model:

$$P_n = \frac{\text{FCFE}_{n+1}}{r - g_n}$$

Where  $g_n$  is the growth rate after the terminal year. Fernandez (2007) states that we use a constant value as in the future competitive advantages will tend to disappear with time and more distant the future the more difficult it is to forecast cash-flows.

Goedhart (2005a) tells us that this method is difficult to implement as *“capital structure is embedded within cash flow”*.

### 5.3.2 – Capital Cash Flow

CCF *“is the term given to the sum of the debt cash flows plus the equity cash flows”* (Fernández 2007). Ruback (2000) states its superiority in its simplicity to calculate a company when debt is forecasted in an amount of money or when capital structures change over time. It is a derivation of the Free Cash-Flow to the Firm. The Formula is:

$$E + D = \text{present value [CCF; WACC}_{BT}]$$

$$WACC_{BT} = \frac{E K_e + D K_d}{E + D}$$

$$CCF = (ECF + DCF)$$

4

Where E is the value of Equity, D is Debt, WACC<sub>BT</sub> is WACC before taxes. But Boot (2007) answers that “if a firm has an optimal or target debt ratio then APV and CCF add little, if anything, to a conventional WACC valuation”. Because this model is more complicated to calculate than the WACC, he states that if there is a target capital structure we should use WACC because it is simpler. We should note that this model and APV are almost equal, with the main difference that we are discounting tax-shields on the WACC and on the CCF, while on the APV we are using  $R_d$  (as it assumes that its risk is the risk of not paying its interests and debt). On the other hand, APV takes into account the costs of financial distress.

### 5.3.3 – Dividend Discount Model

This method is characterized by the assumption that when someone buys a stock, it is with the intention of receiving its dividends and its expected price at the end of the holding period, as the value of a stock is expected to be the present value of the dividends until the end of the life of the asset. I would like to stress that this is a direct method to calculate Equity, as it is a derivation of the Free Cash Flow to Equity method.

$$\text{Value per share of stock} = \sum_{t=1}^{t=\infty} \frac{E(DPS_t)}{(1+k_e)^t}$$

Where  $E(DPS_t)$  are the expected dividends per share in period  $t$  and  $k_e$  is the cost of equity.

According to this method, the value of a stock is like any other DCF method - the sum of its cash-flows discounted to the appropriate risk, depending in this case on just two variables, the cost of equity and the forecasted dividends. The problem of this method is that we have

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<sup>4</sup> Fernández (2007)

to make assumptions about payout ratios, ignoring that the Company may have a positive cash-flow but instead of distributing it might repurchase stock or simply accumulate cash. And another problem that this method ignores is that dividends are a result of political factors within the company and do not depend on its results. 2012 was the first year that Apple paid dividends. If we used this model previously, it would fail to give a positive valuation of the stock while its price rose 146.9% in 2009, 53.07% in 2010 and 25.56% in 2011<sup>5</sup>.

#### 5.4 – Cost of Equity

We want to discover the cost of equity of a Company to be able to value it. For that, we need a model where *“models of risk and return in finance take the view that the risk in an investment should be a function of this risk measure”* (Damodaran a). Accordingly with the author, *“there is a firm-specific component that measures risk that relates only to that investment or to a few investments like it, and a market component that contains risk that affects a large subset or all investments. It is the latter risk that is not diversifiable and should be rewarded”*.

There are several models, but the most widely used is the Capital Asset Pricing Model. According to Rosenberg (a) *“residual risk can be eliminated cheaply through diversification”* and so, the *“primary use of the CAPM is to determine minimum required rates of return from investments in risky assets”*. This model states that excess return over the market bearing no risk associated with it should be zero.

CAPM requires 3 inputs in order to calculate expected return – risk free rate, a beta for the asset and an expected risk premium for the market portfolio.

$$\text{Expected Return} = \text{Riskfree Rate} + \beta_{jM} (\text{Risk Premium on Market Portfolio}) \quad 6$$

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<sup>5</sup> Source: Bloomberg

<sup>6</sup> Damodaran (a)

So, the first thing we need to get is a Beta. As MacQueen (a) tells us, this model has several limitations. Even so, *“betas do work more or less”, “they furnish the only reliable means of estimating required rates of return”. “The appropriate measure of an investment’s risk to use for discounting purposes is the non-diversifiable component of total risk or our old beta friend”*. (Damodaran a) states that *“betas are estimated, by most practitioners, by regressing returns on an asset against a stock index, with the slope of regression being the beta of the asset”*.

There are some questions that arise about a diversified portfolio in order to have the Beta:

What is it really? Should we focus on an Equity Index? Or debt? Domestic? Global? The problem is that there are no Indexes that measure or even come close to the market portfolio. S&P500, the most widely used, has just 500 companies from the thousands that are traded in the USA. In emerging markets this problem is even bigger. (Damodaran a) tells us to use Indexes that include more securities and are market weighted, as they provide better results; and the index should reflect how the marginal investor in the market is diversified. In the case of Oi we should remember that the biggest shareholder is the Brazilian Government, and that the Bovespa is a large Index with a large number of companies with different investors, that being the reason that I used it to compute Oi’s beta.

And what should be the time period used in the regression? There is a trade-off, between going too far back and the changes that the company might have had in terms of business mix and leverage. In Oi’s case I use data since 2001 for Beta regression.

A possible correction in the calculus of Beta that Damodaran(a) provides is to push our regression closer to one, as the sum of every asset in the market should have a Beta equal to one. We will use the method that the author proposes, even if there are other models such as the Bayesian Model. This method is also called the Merrill Lynch Beta.

$$\text{Adjusted Beta} = \text{Regression Beta} (0.67) + 1.00 (0.33) \quad 7$$

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<sup>7</sup> Damodaran(a)

What about the Risk Free Rate? According to Goedhart (2005a), we should look to government bonds to establish  $R_f$ . The question is, according to the author, which maturity should we use? Ideally each cash-flow should be discounted using a government bond with a similar maturity, which he defends is not practical. Instead he suggests choosing one single yield from one government bond that best matches the entire cash flow stream being valued. Preferably he tells us to use local bonds to estimate the risk-free rate of assets, usually using a 10 year maturity Bond.

Damodaran (2008) starts by telling us that  $R_f$  is essential for a valuation, as *“the expected return on risky investments are then measured relative to the risk free rate”*. It is uncorrelated with risky investments and it cannot have any default risk. As he tells us, it directly affects the cost of equity and the cost of debt of the company. He tells us to estimate it from a zero-coupon government Bond.

For the  $R_m$  we should forecast the average return of the index chosen previously to compute the Beta. Once more, time horizon is crucial. It should reflect past events but on the other hand it should be adjusted for the future (e.g. during 1997, 1998 and 1999 the Athens Stock Exchange grew 58.51%, 85.02% and 102.19%<sup>8</sup> but we know that these growth rates will not happen in the future due to the economic crisis that the country has been facing).

A final factor we should take into account is the Country Risk Premium. This leads to several discussions between authors. Are these risks (like political ones) diversifiable by the investor? If so, we should ignore the country risk-premium. But on the other hand, we should also take into account how the average investor constructed its portfolio. Is he home biased? Do markets remain segmented? Also some authors state that we should focus only on the expected cash-flows instead of adding a country risk premium. I disagree with this last opinion as it is very difficult to account how the risks of the country will affect company's cash-flow.

Both for Brazil and Portugal I used Country Risk Premium. The default risk of Portugal has been increasing as all investors have some Home Bias (I can't imagine that BES, with a 10%

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<sup>8</sup> Source: Bloomberg

position in Portugal Telecom, isn't market biased on the company). But how do we compute the Country Risk Premium? Here is where the discussion gets harder. Opinions and practices differ from different authors and analysts. (Damodaran 2012) provides us three possible solutions: the usage of a sovereign rating and its default probability (as Moody's does), the subscription of a service from a company that evaluates the economy of a country and provides these spreads (Fernandez and Damodaran usually do it) and the usage of a market approach. I prefer the last as the first and the second are more fixed and don't adapt quickly to new information. If Greece defaults tomorrow, the probability of Portugal going next should be higher, although these services would take more time to respond to this new information. Damodaran (2012) offers several forms of calculating this. For Brazil, as there are Brazilian Government Bonds traded in Dollars, I used the differential on the Yields between them and those from US. For Portugal Telecom, as Portuguese Government Bonds are traded in Euros and I choose German Government Bonds as risk-free for the region, I used the spread between the two.

Another thing that I would like to underline is that usually an Investment Bank defines a Country Risk Premium and then applies it equally to business units with exposure to that unit. Damodaran (2012) proposes to use a  $\lambda$  to differentiate how different companies are exposed to the risk-premium. This is not usually used by Analysts though (as said before), as it is not easy to estimate the  $\lambda$ , as it is a relative estimate.

## 5.5 – Cost of Debt

As Goedhart (2005a) tells us, we set the cost of Debt by summing the risk-free rate of the company and the company default spread. There are two major indicators to get the default spread of a company - the coverage ratio and the size of the company. There are also other methods that involve the computing of the company's cost of Debt. If we know how the market is valuing the company's debt we should use that method. In the case of Oi, Debt is usually raised by paying the SELIC plus a small premium (around 0.5%). In the case of Portugal Telecom, we have traded bonds of the company, the Debt interests that they have

been paying (over their Net Debt) and the negative outlook that I have for the Portuguese economy. Due to this I choose a value of 7.5% for their  $k_d$  in the future, as I think that the deterioration of the Portuguese economy will raise up interests paid by the company as its debt redeems and it issues new debt.

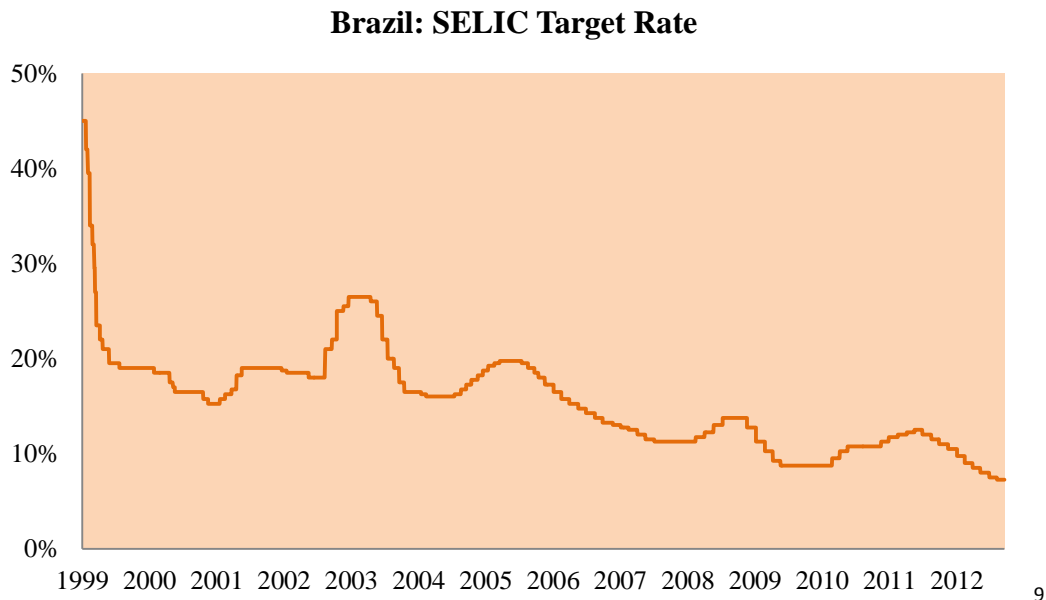


Figure 2

## 6 – Valuation Model Choice

Both for Oi and Portugal Telecom I choose the Free Cash Flow to the Firm methods, as I am using a Sum-of-the-Parts Model, valuing Brazilian Operations and Portugal Telecom each separately. As both FCFF and FCFE are supposed to be equal, and I am more familiar with the first (one of the main reasons why analysts prefer one model over others) I chose that. The way I computed WACC for both companies differed. For Oi, I used as  $R_f$  the Brazilian 10 Year Government Bonds Yields as for Portugal Telecom I used German 10 Year Government Bond Yields.

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<sup>9</sup> Source: Brazil Central Bank

### III – Brazilian Industry Analysis

#### 7 – Brief Overview

The Telecom Industry is divided into three major services: Fixed Lines, Mobile Lines and Paid TV. I believe that as the market matures and infrastructures are developed, Fixed Lines and Paid TV should converge, although this process should take longer in large countries like Brazil where its infrastructures are under-developed.

But Brazil is an economy that has been growing at a fast pace, which has been one of the catalysts for sustaining the growth of the sector.

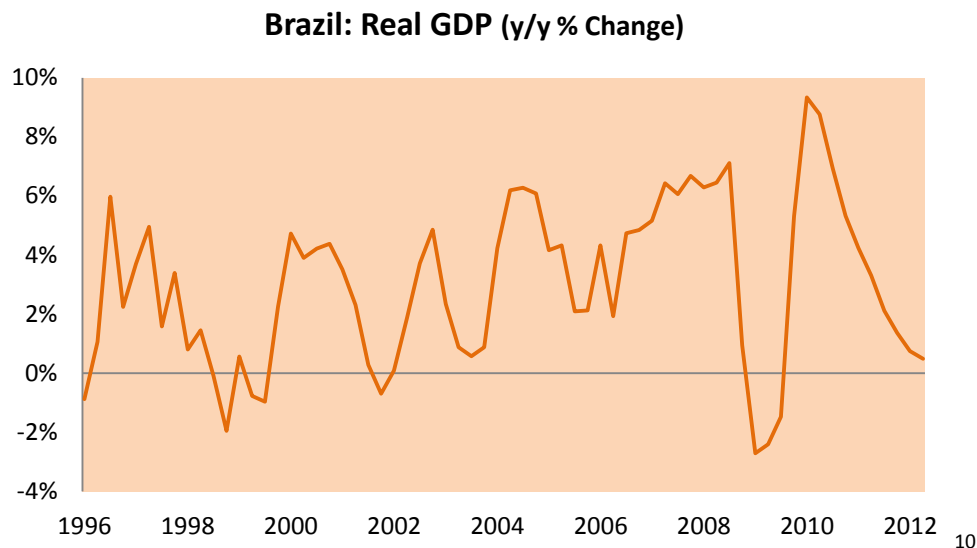


Figure 3

We should be aware however that due to the economic crisis this economic growth has been slowing. IMF forecasts that the economy grew 2.9% in 2012 and will grow 4.2% in 2013 and 3.9% in 2014<sup>11</sup>. The Brazilian Government has been implementing initiatives to boost industrial growth. To this effect, they introduced tax cuts in several sectors since the end of

<sup>10</sup> Source: Brazilian Institute of Geography and Statistics

<sup>11</sup> Source: Economic Prospects, Managing Growth in a Volatile World, World Bank

2011. The problem is that these cuts that were made to boost the Brazilian economy ended on December 31<sup>st</sup> 2012.

The Brazilian Central Bank has been cutting the SELIC for the past years to sustain the economy's growth. But in its October 2012 Meeting, the COPOM Minutes (Central Bank Monetary Policy Committee) signaled that this should be the end of an easing cycle. The positive side is that inflation is expected to slow down due to this weaker growth according to the IMF.

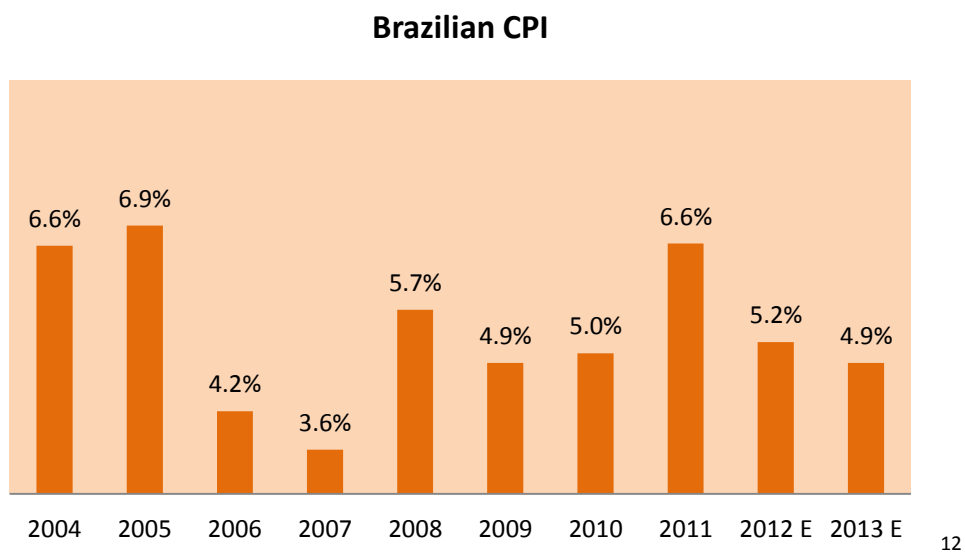
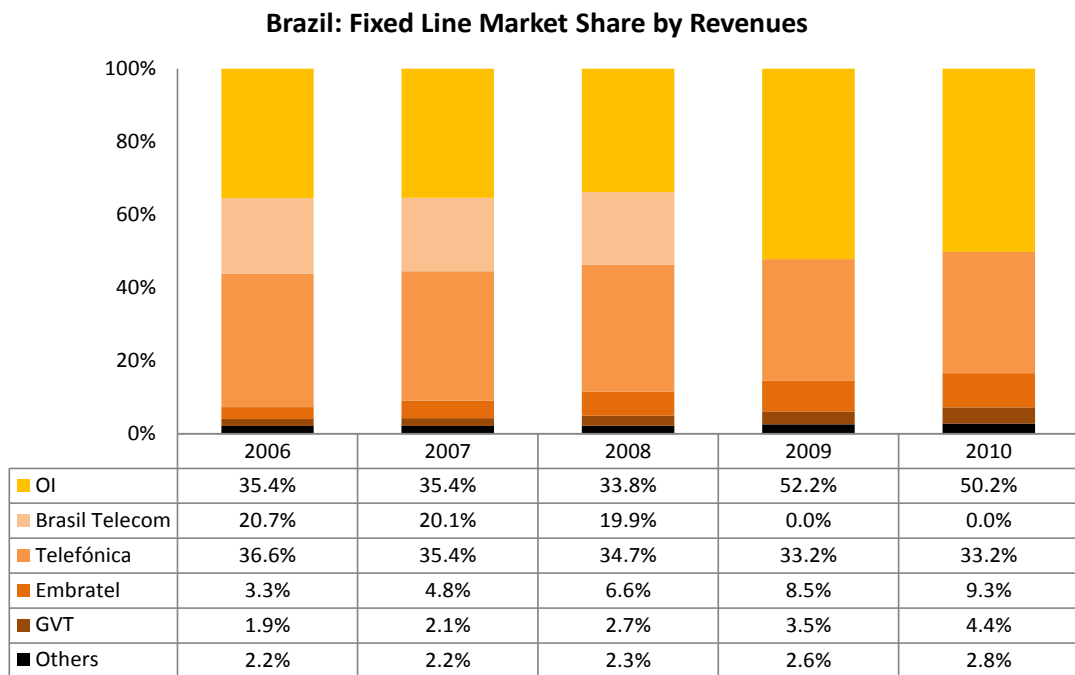


Figure 4

## 8 – Fixed Lines

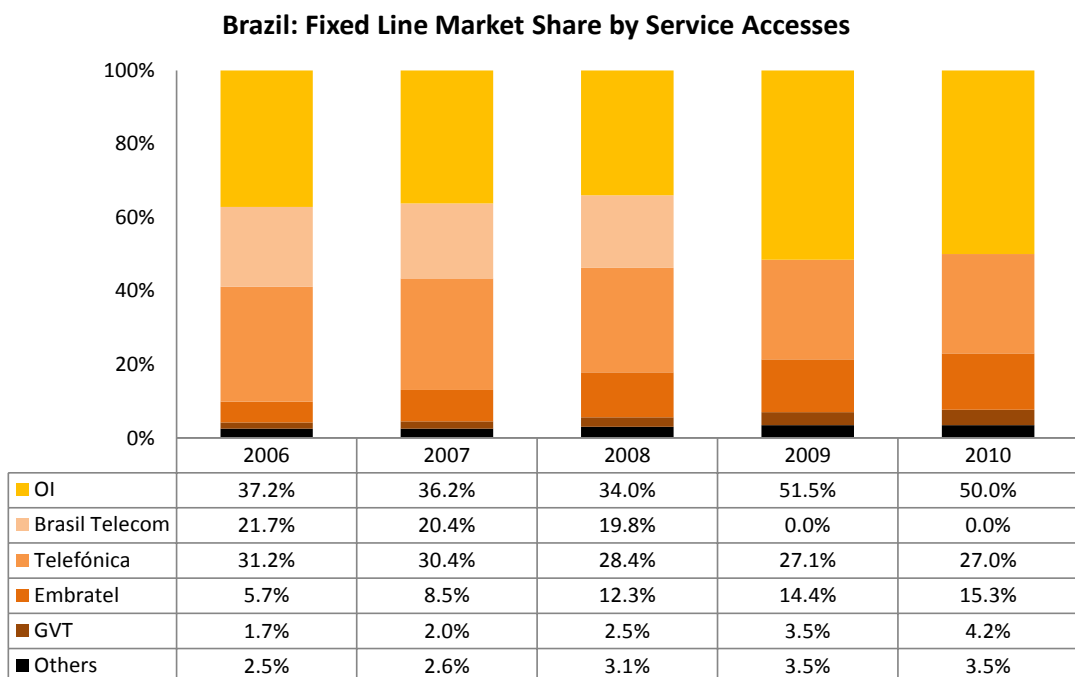
The number of Fixed Lines has been growing quite fast and as the economy improves and the medium-class develops, this number should continue improving, albeit at a slower pace. Oi is the major player in the country in this segment, both in revenues and market share after buying Brazil Telecom in 2009.

<sup>12</sup> Source: Bloomberg; World Economic Outlook, Coping with High Debt and Sluggish Growth (October 2012) International Monetary Fund



13

Figure 5



14

Figure 6

<sup>13</sup> Source: Anatel, September 2012 Data<sup>14</sup> Source: Anatel, September 2012 Data

This sector is key for Oi's growth as it might be an opening for starting to supply Paid TV services to their customers and by increasing their RGUs.

## 9 – Mobile Services

Mobile Service growth rate has been stunning. Although Brazil is still far from the penetration found in countries like Portugal (in 2011 had a penetration of 156%), the data suggests that it is catching up fast.

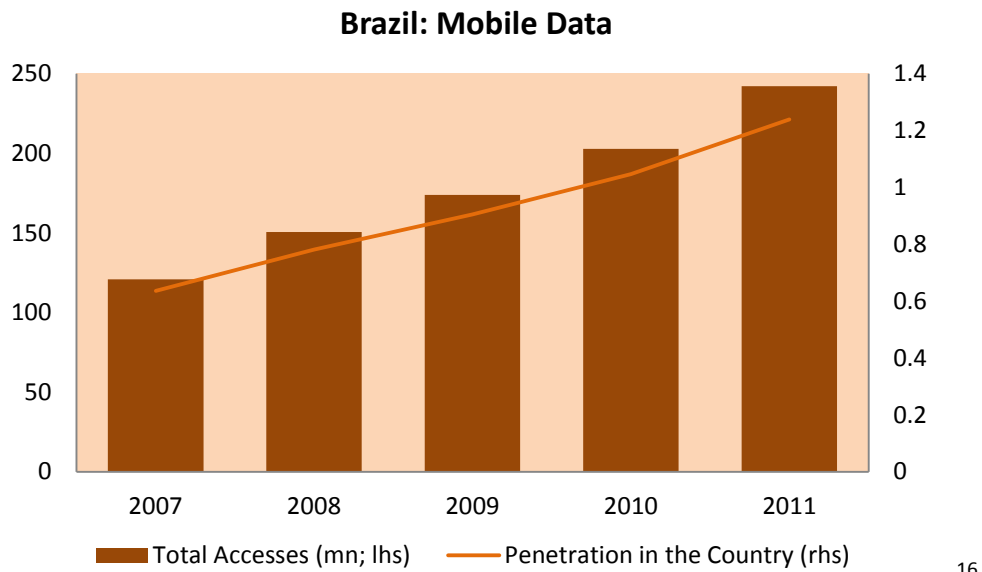
| Market Penetration on Mobile Subscribers |               |               |               |               |               |               |               |               |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Country                                  | 2004          | 2005          | 2006          | 2007          | 2008          | 2009          | 2010          | 2011          |
| Latvia                                   | 63.1%         | 79.0%         | 97.7%         | 107.1%        | 152.6%        | 146.2%        | 150.7%        | 190.3%        |
| Finland                                  | 94.8%         | 102.0%        | 106.4%        | 114.5%        | 129.4%        | 142.5%        | 150.1%        | 163.3%        |
| Italy                                    | 102.1%        | 118.5%        | 132.1%        | 145.7%        | 104.2%        | 104.2%        | 154.7%        | 158.8%        |
| <b>Portugal</b>                          | <b>100.4%</b> | <b>108.3%</b> | <b>115.4%</b> | <b>126.7%</b> | <b>140.7%</b> | <b>151.0%</b> | <b>151.7%</b> | <b>156.4%</b> |
| Lithuania                                | 100.0%        | 125.0%        | 138.6%        | 145.4%        | 141.0%        | 143.3%        | 150.8%        | 151.9%        |
| Austria                                  | 96.4%         | 104.3%        | 111.8%        | 117.8%        | 125.1%        | 131.2%        | 142.5%        | 148.4%        |
| Denmark                                  | 97.0%         | 98.7%         | 105.6%        | 112.5%        | 118.6%        | 123.8%        | 140.8%        | 146.5%        |
| Bulgaria                                 | NA            | NA            | 107.0%        | 130.0%        | 139.8%        | 138.2%        | 134.4%        | 144.8%        |
| Luxembourg                               | 125.6%        | 133.7%        | 135.6%        | 139.8%        | 93.1%         | 101.1%        | 140.5%        | 142.8%        |
| Sweden                                   | 109.4%        | 109.4%        | 115.6%        | 115.5%        | 124.6%        | 130.2%        | 129.6%        | 137.7%        |
| United Kingdom                           | 100.9%        | 107.9%        | 115.2%        | 121.0%        | 121.4%        | 124.1%        | 133.3%        | 135.9%        |
| Cyprus                                   | 87.6%         | 99.9%         | 111.4%        | 121.1%        | 128.2%        | 127.5%        | 126.6%        | 135.3%        |
| Estonia                                  | 92.8%         | 105.8%        | 116.3%        | 118.2%        | 122.6%        | 118.4%        | 119.8%        | 134.0%        |
| Czech Republic                           | 105.6%        | 112.7%        | 128.2%        | 128.2%        | 127.5%        | 130.5%        | 126.7%        | 128.5%        |
| Greece                                   | 93.9%         | 104.9%        | 116.1%        | 136.5%        | 155.9%        | 169.1%        | 115.5%        | 127.5%        |
| Spain                                    | 87.9%         | 96.7%         | 105.9%        | 110.6%        | 113.5%        | 117.4%        | 119.4%        | 126.1%        |
| Germany                                  | 82.2%         | 90.8%         | 98.5%         | 112.4%        | 123.8%        | 125.2%        | 117.1%        | 121.1%        |
| Poland                                   | 60.6%         | 76.5%         | 95.7%         | 108.7%        | 115.3%        | 115.9%        | 114.3%        | 120.4%        |
| Ireland                                  | 88.9%         | 100.2%        | 109.4%        | 117.2%        | 140.1%        | 136.2%        | 114.2%        | 118.7%        |
| Malta                                    | 76.7%         | 81.3%         | 85.4%         | 90.2%         | 112.0%        | 116.8%        | 105.2%        | 117.7%        |
| Belgium                                  | 81.5%         | 83.6%         | 91.0%         | 99.5%         | 105.5%        | 107.4%        | 110.1%        | 114.9%        |
| Slovakia                                 | 79.3%         | 84.3%         | 90.6%         | 108.0%        | 103.5%        | 104.1%        | 107.6%        | 112.3%        |
| Romania                                  | NA            | NA            | 80.8%         | 106.1%        | 129.1%        | 137.3%        | 112.6%        | 110.2%        |
| Hungary                                  | 82.5%         | 86.6%         | 92.9%         | 100.6%        | 118.9%        | 118.9%        | 108.7%        | 110.2%        |
| Slovenia                                 | 95.9%         | 89.6%         | 89.6%         | 95.8%         | 101.1%        | 102.0%        | 103.1%        | 105.5%        |
| Netherlands                              | 92.8%         | 93.4%         | 97.5%         | 106.2%        | 109.6%        | 106.2%        | 99.7%         | 102.0%        |
| France                                   | 69.0%         | 75.9%         | 81.7%         | 86.1%         | 89.2%         | 91.4%         | 93.0%         | 99.0%         |

NA: Not Available

15

Figure 7

<sup>15</sup> Source: Anacom



16

Figure 8

Morgan Stanley<sup>17</sup> in a recent report pointed to the importance of investing in infrastructure as they foresee Data needs rising exponentially in future years, leading to a convergence of services. I don't think this will be the case of Brazil in the immediate future however as their services are still lagging behind their peers in Europe and their customers don't have the data needs that other Developed countries' customers have and as their economy shows signs of slowing down.

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<sup>16</sup> Source: Anatel

<sup>17</sup> Source: Mobile Data Wave, Who Dares to Invest Wins, June 13<sup>th</sup> 2012, Morgan Stanley

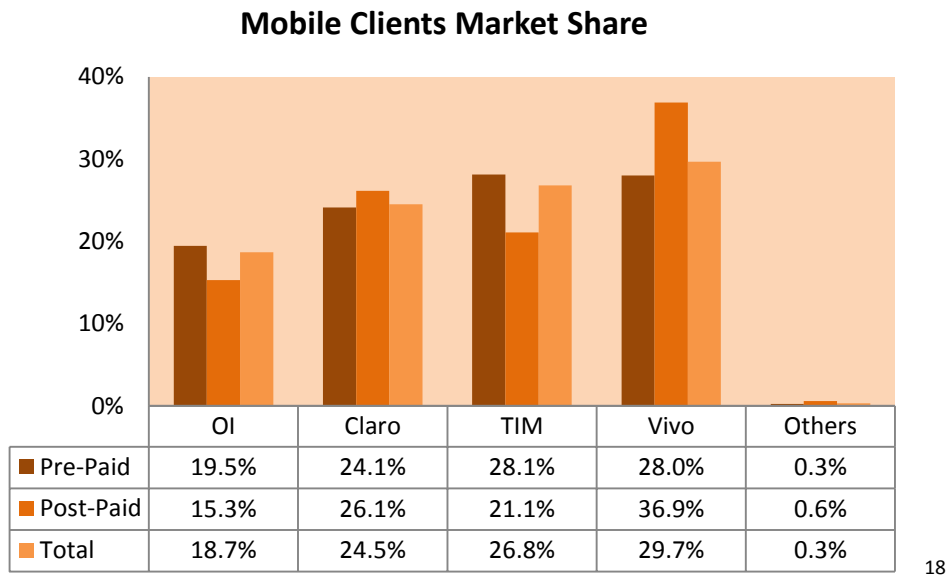


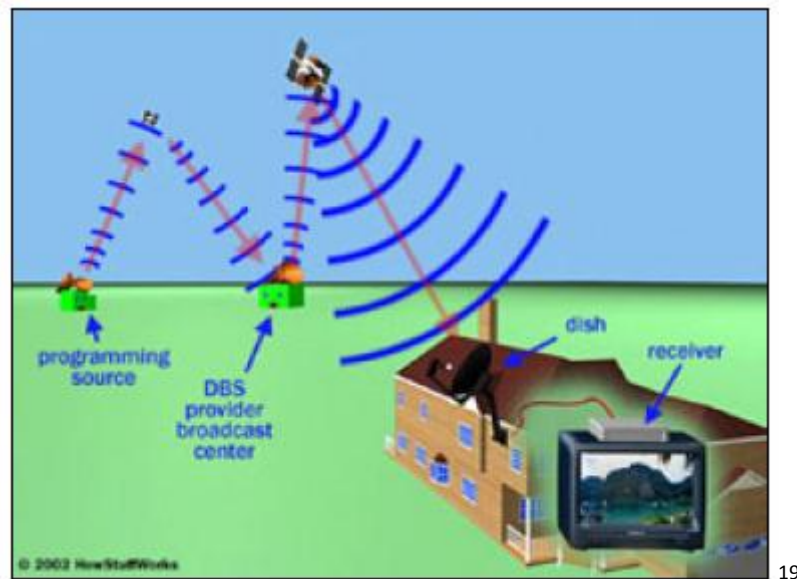
Figure 9

Oi is amongst the largest players in the market, currently the 4<sup>th</sup>. We should be aware that the trend in this industry is that Post-Paid Customers start switching tariffs becoming Pre-Paid customers as their data needs increase. These will have higher ARPU's for the companies but will also have higher data needs which will force the companies to invest in their infrastructure.

## 10 – Paid TV

The number of Paid TVs has been increasing in Brazil. The major source of this increase is DTTH (Direct to the Home) where a satellite is used to transmit all the contents to their customers.

<sup>18</sup> Source: Anatel, September 2012 Data



19

Figure 10

This is done through a provider who broadcasts content to their subscribers through a satellite. Currently the technology is able to provide digital services in the country. The provider pays other companies (e.g. Fox, Bloomberg, CNBC) for the right to broadcast their content via satellite. In this way, the provider is like a broker between the viewer and the programming source. There is a broadcast center where the company receives the signals from all the programming sources and from there it broadcasts them to their satellites. Those receive the signals and then rebroadcast them to the ground. The viewer's dish picks up the signal from the satellite and passes it on to the receiver in the viewer's house that then passes it to the client's TV.

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<sup>19</sup> Source: Scatmag.com

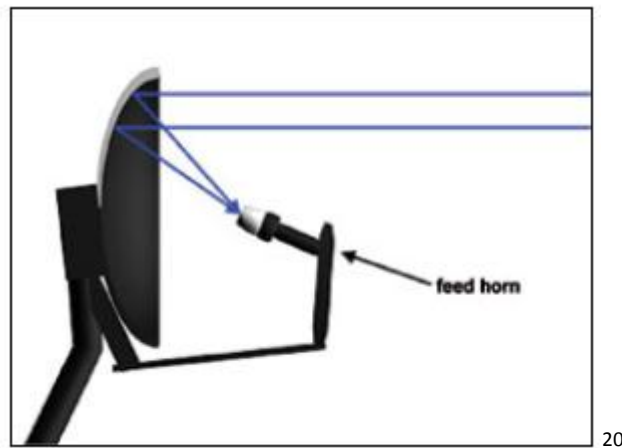


Figure 11

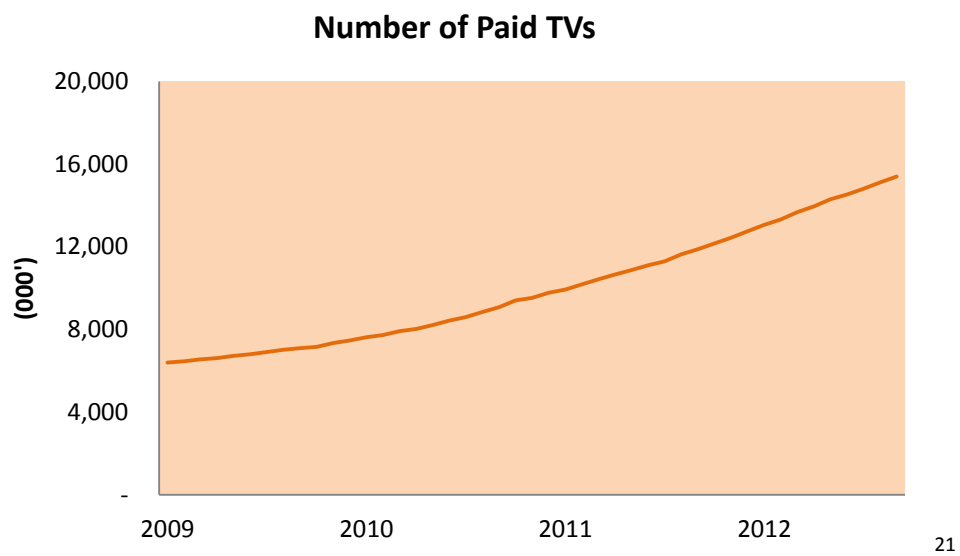


Figure 12

We expect that the number of Paid TVs will continue to increase in the future in Brazil as the penetration of this service within the country is still low.

<sup>20</sup> Source: Scatmag.com

<sup>21</sup> Source: Anatel, September 2012 Data

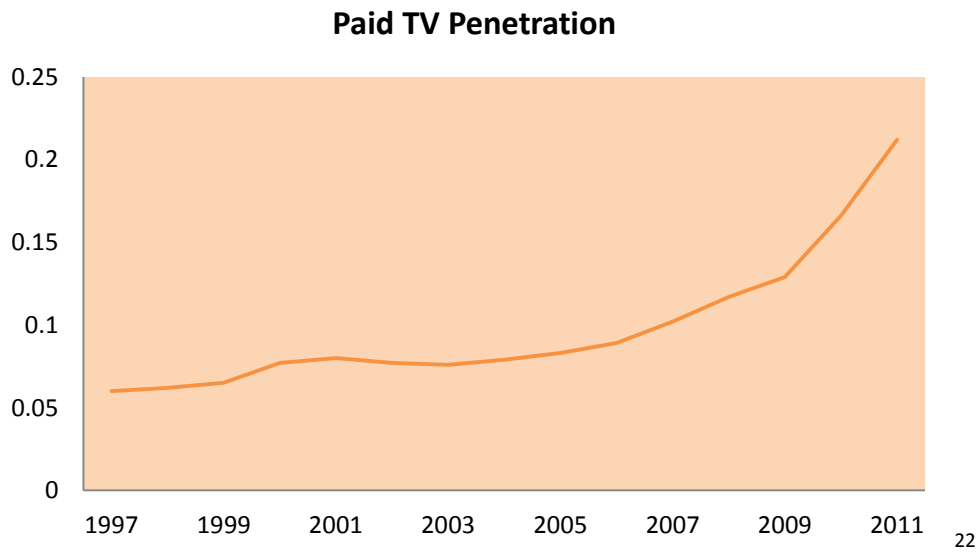
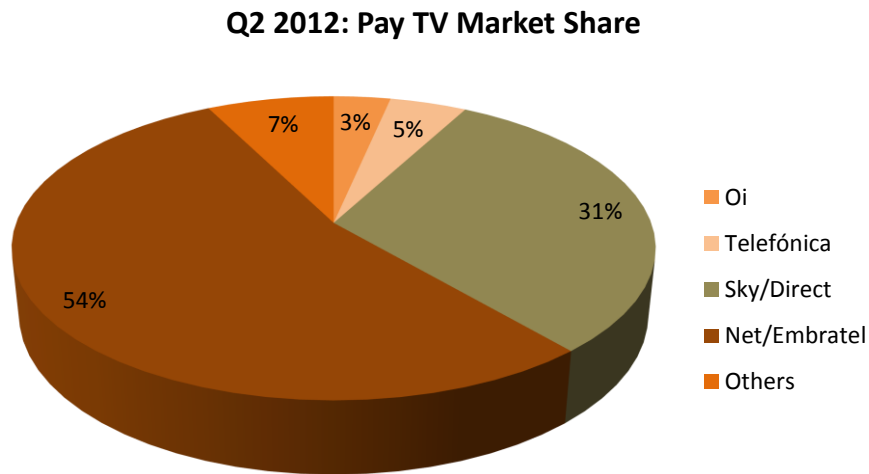


Figure 13

For companies like Oi, the currently low penetration of Paid TV offers them a large cross selling opportunity in markets where they are already present in Fixed Communications.



23

Figure 14

<sup>22</sup> Source: Anatel

<sup>23</sup> Source: Anatel

## IV – Oi: A Convergent Telecom Player

### 11 – From Where It Came

The company was created in 1998 under the name of Telemar during the privatization of the Brazilian Telecom Industry. Composed of companies that operated in 16 different States, it started by offering just local voice, data services and interstate long distant voice services.

2009 was a key year for Oi as it bought Brazil Telecom, becoming the major fixed telecommunications player in Brazil.

Today the company is in a totally different position than when it started. It now offers a wide range of services from fixed to mobile and corporate telecommunications.

| Main Shareholders of Oi | Holding %           |
|-------------------------|---------------------|
| Bratel                  | 14.4%               |
| Telemar                 | 13.1%               |
| LF Tel                  | 4.7%                |
| Capital Group Intranet  | 4.4%                |
| AG Telecomunicações     | 4.3%                |
| Free Float              | 51.5% <sup>24</sup> |

Figure 15

### 12 – A Different Range of Products Provided

#### 12.1 – Residential

It offers services such as fixed telephones, broadband, and Paid TV. In 2011 this was the major revenue sector of the company. The largest player in fixed lines within the country,

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<sup>24</sup> Source: Bloomberg

this segment still offers large opportunities. Its ARPU should continue increasing in the sector as Paid TV's penetration increases.

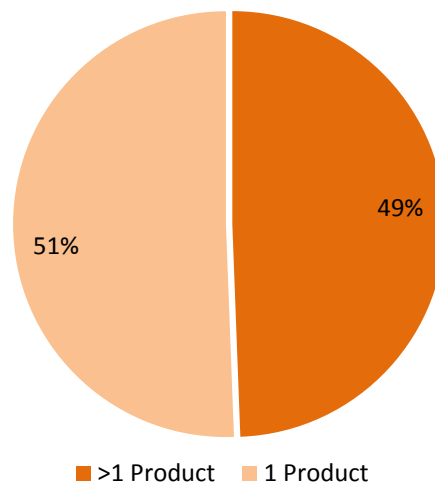
Oi instituted several plans to increase the loyalty and the RGU's of its clients. Some of the measures included: bundled packages, improved customer care, retention processes, improvement of sales channels and greater media exposure.

Product quality has been increasing too. In broadband, investments have been made to increase its speed and quality. Regarding Paid TV, new channels such as Bloomberg and TBS have been offered. Currently the company offers 45 paid channels, eight of which are dedicated to sports.

The company has been increasing its RGUs per household and intends to continue doing so with its convergence of services.

Meanwhile, Oi intends to follow Portugal Telecom's steps and start installing a FTTH infrastructure. By the end of 2012 the company expects to have 150 thousand houses passed. In 2013 the pace of expansion should increase. The company will also continue offering DTH service.

### Oi Q2 2012: Number of Services per Household



25

Figure 16

## 12.2 – Personal Mobility

The 4<sup>th</sup> largest player in Brazil, the company has been growing both in the fixed and mobile segments. Oi intends to keep investing in the high-end segment, where ARPU per client is high and churn-rates are low. Bundled services are offered with *Oi Conta Total*. New packages have been launched such as unlimited WiFi and special services and discounts in data packages and SMS.

The company is using smartphone plans to reinforce its strategy of serving high-end customers.

## 12.3 – Corporate

A broad range of services are provided to its clients, from Fixed, Mobile, Broadband and advanced voice to data networks. Main initiatives of the company have been the expansion of its IT and communications product portfolio and the redesign of the client service model.

<sup>25</sup> Oi, 2Q 2012 Quarterly Report

One of the new services presented recently by the company was *Oi Gestão*, which allows clients to extend company information security policies from their physical networks to mobile handsets according to their needs as well as manage the client data communication infrastructure.

The company was also sponsor and the official Telecom and IT services provider of the UN Conference on Sustainable Development (Rio+20) held in Rio de Janeiro in June.

## **V – Valuation**

### **13 – Introduction**

For Valuing Oi, I used a SoP valuation model. I valued domestic operations through a DCF as I did with its 10% stake in Portugal Telecom. I will start explaining how I have valued the Brazilian Operations and then the method used for Portugal Telecom. I would stress that for valuing the two companies I have constructed a model using my own assumptions. I can update the fair value of the company every time new information is released for one of the companies. These models can also be used to predict the company's results for every quarter or a year, which enables an analyst to judge if those results were positive or not for the company.

### **14 – Revenues**

Oi breaks down its revenues into four sources – residential, personal mobility, corporate and other services. We should bear in mind that historical EBITDA is on a Pro-Forma basis, reflecting the fact that the company has been acquiring other companies. This is why I believe that historical data is not very reliable as recent acquisitions have been increasing its number of clients. But as it isn't expected to make any new acquisitions these numbers should start becoming more stable.

#### **14.1 – Residential**

In the Residential market, the major indicators for its growth rate are the ARPU and the number of clients. We should bear in mind that, as the economy continues growing and as the company continues focusing on customers with more complex needs, its ARPU should continue to have a sustained growth. Although I believe that the company penetration rate

in the fixed line segment is already high, revenues in this segment are expected to increase through the increase of RGU's per customer, which will have a positive effect reducing the customers' churn rate.

I have computed ARPU directly related to RGUs, as it is directly related with the number of services that Oi is providing to its customers. There are different methods that can be used to calculate the number of products. I assumed that Oi would maintain its market share in Broadband in the residential sector. I also assumed that the number of clients would grow at a constant rate (as the middle-class grows in the country). Regarding the number of Paid TV clients, I assumed that the company will gain market-share at a slow pace due to its high-end customer strategy.

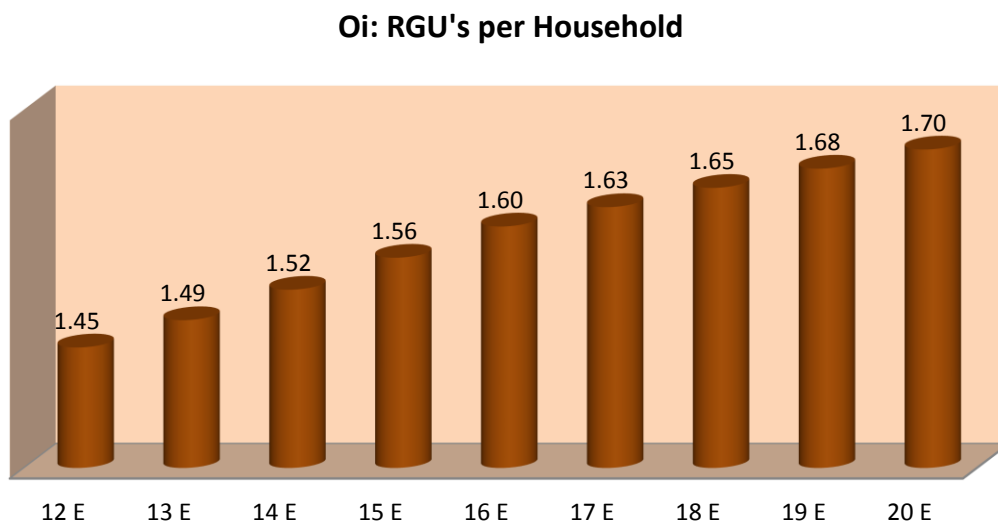


Figure 17

**Residential Operational Data**

| Pro-Forma                              | 2011     | 2012 E   | 2013 E   | 2014 E   | 2015 E   | 2016 E   | 2017 E   | 2018 E   | 2019 E   | 2020 E   |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| RGU (000')                             | 17,809.0 | 18,496.4 | 19,123.0 | 19,811.8 | 20,537.5 | 21,263.3 | 21,801.8 | 22,347.7 | 22,900.9 | 23,461.7 |
| % Change YoY                           | -3.2%    | 3.9%     | 3.4%     | 3.6%     | 3.7%     | 3.5%     | 2.5%     | 2.5%     | 2.5%     | 2.4%     |
| RGUs added per Year (000')             | -595.0   | 687.4    | 626.6    | 688.8    | 725.8    | 725.7    | 538.5    | 545.9    | 553.3    | 560.8    |
| Average RGUs (000')                    | 18,331.8 | 18,055.3 | 18,809.7 | 19,467.4 | 20,174.7 | 20,900.4 | 21,532.5 | 22,074.7 | 22,624.3 | 23,181.3 |
| RGUs added per Year (Average)          |          | -276.4   | 754.3    | 657.7    | 707.3    | 725.8    | 632.1    | 542.2    | 549.6    | 557.0    |
| Number of Products per House (Average) | 1.37     | 1.45     | 1.49     | 1.52     | 1.56     | 1.60     | 1.63     | 1.65     | 1.68     | 1.70     |
| % Change YoY                           |          |          | 2.4%     | 2.6%     | 2.6%     | 2.5%     | 1.5%     | 1.5%     | 1.5%     | 1.4%     |
| ARPU (Monthly BRL)                     | 64.80    | 66.12    | 67.69    | 69.43    | 71.26    | 73.05    | 74.16    | 75.26    | 76.36    | 77.46    |
| % Change YoY                           | -4.0%    | 2.0%     | 2.4%     | 2.6%     | 2.6%     | 2.5%     | 1.5%     | 1.5%     | 1.5%     | 1.4%     |
| Number of Houses of Oi (000')          | 13,553.2 | 12,743.7 | 12,871.1 | 12,999.8 | 13,129.8 | 13,261.1 | 13,393.7 | 13,527.7 | 13,663.0 | 13,799.6 |
| Telephones (000')                      | 13,046.0 | 12,743.7 | 12,871.1 | 12,999.8 | 13,129.8 | 13,261.1 | 13,393.7 | 13,527.7 | 13,663.0 | 13,799.6 |
| Telephones per House                   | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| BroadBand Internet RGUs (000')         | 4,412.0  | 5,097.5  | 5,405.9  | 5,719.9  | 6,039.7  | 6,365.3  | 6,696.9  | 7,034.4  | 7,378.0  | 7,727.8  |
| % of Houses with Broadband             | 32.6%    | 40.0%    | 42.0%    | 44.0%    | 46.0%    | 48.0%    | 50.0%    | 52.0%    | 54.0%    | 56.0%    |
| Paid TV RGUs (000')                    | 351.0    | 655.2    | 846.0    | 1,092.0  | 1,368.0  | 1,636.8  | 1,711.2  | 1,785.6  | 1,860.0  | 1,934.4  |
| Services per House                     | 1.31     | 1.45     | 1.49     | 1.52     | 1.56     | 1.60     | 1.63     | 1.65     | 1.68     | 1.70     |

Figure 18

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**14.2 – Personal Mobility**

On Personal Mobility, revenues will be dependent on the number of clients and its ARPU. The number of clients is the sum of the number of clients with Pre-Paid or Post-Paid tariffs. Both should continue to grow as the economy develops and data needs increase. Higher migration to Pre-Paid tariffs is expected. In developed countries this is already happening, although I don't think that it will happen in the short-term in Brazil. For now, we should continue to see an increase of the penetration rate of mobile phones in Brazil with new clients entering the Pre-Paid tariffs segment. However, we should be aware that Oi is focused on clients with more sophisticated needs. But I believe that ARPU should grow at a lower rate than inflation due to increasing competition.

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<sup>26</sup> For Quarterly Data, please consult Appendix 1

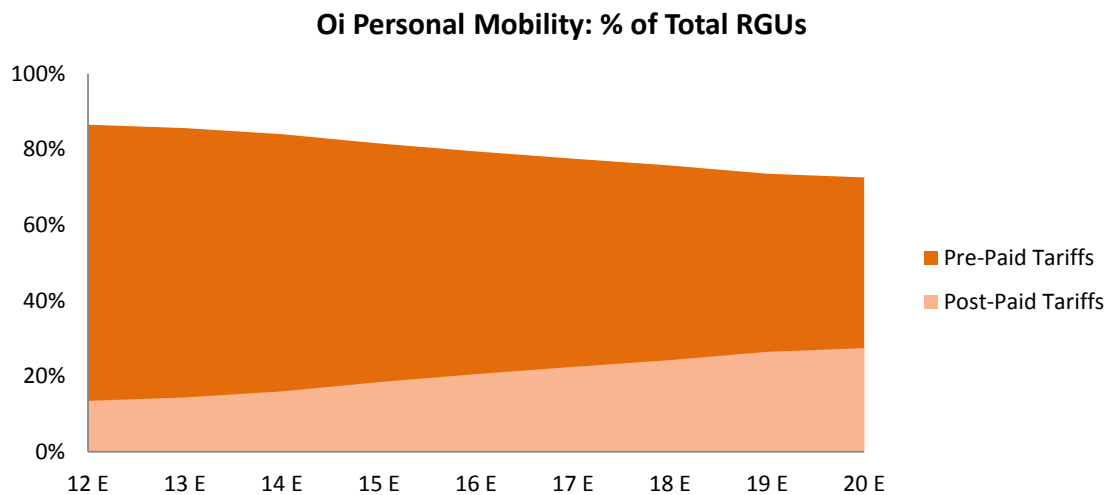


Figure 19

Another factor that we should be aware of is the seasonality usually seen in the data. The number of clients usually increases in the 4<sup>th</sup> quarter (as new mobile phones are offered in Christmas) although the ARPU should fall as promotions are made by companies.

In the following years the number of net-adds should be higher in the Pre-Paid tariffs segment. But we should be aware that the percentage gains should be higher in Post-Paid tariffs. In my opinion, we will continue witnessing an ARPU increase, although at a lower level than inflation<sup>27</sup>, due to an increase of competition within the industry.

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<sup>27</sup> Source: Bloomberg

**Personal Mobility Operational Data**

| Pro-Forma    | 2011     | 2012 E   | 2013 E   | 2014 E   | 2015 E   | 2016 E   | 2017 E   | 2018 E   | 2019 E   | 2020 E   |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| RGU (000')   | 43,263.0 | 46,919.7 | 48,363.9 | 50,028.3 | 52,048.2 | 53,700.1 | 55,024.6 | 56,047.5 | 56,558.3 | 56,175.0 |
| % Change YoY | 15.4%    | 8.5%     | 3.1%     | 3.4%     | 4.0%     | 3.2%     | 2.5%     | 1.9%     | 0.9%     | -0.7%    |
| Pre Paid     | 37,978.0 | 40,597.1 | 41,409.0 | 42,030.2 | 42,450.5 | 42,662.7 | 42,662.7 | 42,449.4 | 41,600.4 | 40,768.4 |
| % Total      | 87.8%    | 86.5%    | 85.6%    | 84.0%    | 81.6%    | 79.4%    | 77.5%    | 75.7%    | 73.6%    | 72.6%    |
| % Change YoY | 16.5%    | 6.9%     | 2.0%     | 1.5%     | 1.0%     | 0.5%     | 0.0%     | -0.5%    | -2.0%    | -2.0%    |
| Postpaid     | 5,285.0  | 6,322.6  | 6,954.9  | 7,998.1  | 9,597.7  | 11,037.4 | 12,361.9 | 13,598.1 | 14,957.9 | 15,406.6 |
| % Total      | 12.2%    | 13.5%    | 14.4%    | 16.0%    | 18.4%    | 20.6%    | 22.5%    | 24.3%    | 26.4%    | 27.4%    |
| % Change YoY | 8.1%     | 19.6%    | 10.0%    | 15.0%    | 20.0%    | 15.0%    | 12.0%    | 10.0%    | 10.0%    | 3.0%     |
| ARPU Monthly | 22.30    | 21.40    | 22.02    | 22.76    | 23.50    | 24.22    | 24.99    | 25.82    | 26.67    | 27.55    |
| % Change YoY |          | -4.0%    | 2.9%     | 3.4%     | 3.2%     | 3.1%     | 3.2%     | 3.3%     | 3.3%     | 3.3%     |

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Figure 20

**14.3 – Corporate**

In the Corporate Segment, the number of RGU's that the company is expected to provide to its clients will probably be directly related with inflation growth. But its revenues should grow at a lower rate as the competition and the services offered increases.

**14.4 – Other Services**

These revenues should continue to decrease as its usage decreases and the regulation of prices has a negative effect on revenues.

**Oi's Total Revenues**

| Pro-Forma (BRL Mn) | 2011            | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Residential        | 10,539.0        | 9,913.4         | 10,454.3        | 10,830.8        | 11,227.6        | 11,624.3        | 11,918.7        | 12,217.1        | 12,519.6        | 12,826.2        |
| Personal Mobility  | 8,189.0         | 8,941.3         | 9,843.7         | 10,641.4        | 11,541.9        | 12,478.9        | 13,399.5        | 14,315.3        | 15,169.8        | 15,878.0        |
| Corporate          | 8,464.0         | 8,321.0         | 8,321.0         | 8,518.0         | 8,709.1         | 8,890.1         | 9,082.8         | 9,293.5         | 9,505.8         | 9,726.6         |
| Others             | 716.0           | 581.4           | 546.5           | 513.7           | 482.9           | 453.9           | 426.7           | 413.9           | 401.4           | 389.4           |
| <b>Total</b>       | <b>27,908.0</b> | <b>27,757.0</b> | <b>29,165.4</b> | <b>30,503.8</b> | <b>31,961.4</b> | <b>33,447.3</b> | <b>34,827.7</b> | <b>36,239.8</b> | <b>37,596.7</b> | <b>38,820.3</b> |

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Figure 21

**15 – Operational Expenses (Opex)**

Operational expenses should continue growing as the company's activity and inflation increases in the country.

<sup>28</sup> For Quarterly Data, please consult Appendix 2

<sup>29</sup> For Quarterly Data, please consult Appendix 3

On interconnection costs, I expect them to stay constant. On one hand, they should increase as data traffic increases but on the other they should decrease as MTR rates are expected to decrease by Anatel's decision.

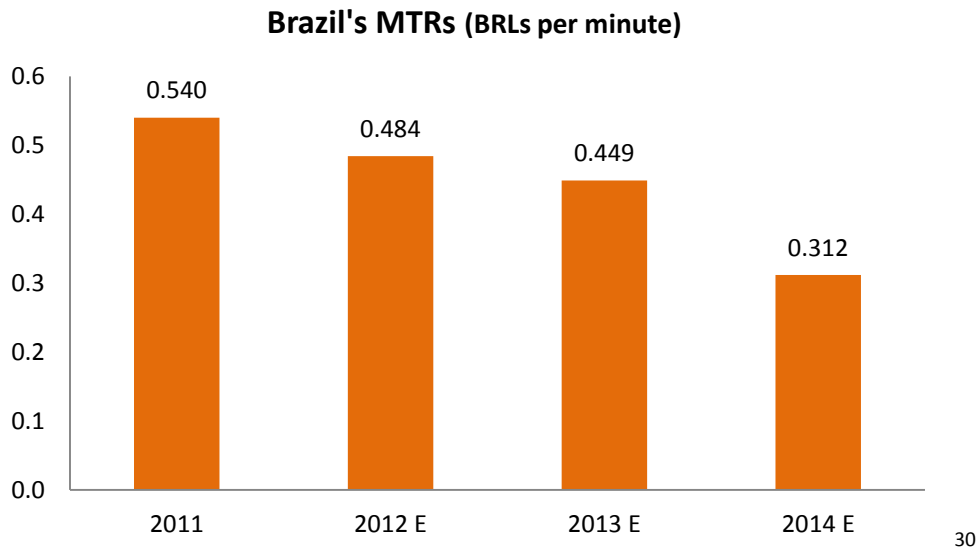


Figure 22

Personnel costs should continue growing, at least at the inflation rate. The company should provide more services and increase their availability. The company will probably increase its sales force.

Material expenses are directly related with revenues and should continue increasing at the same pace as revenues. Also COGS, Third Party Events, Marketing, and provisions for bad expenditures should increase at the same pace of revenues.

Other Operating Expenditures should continue to rise at the inflation pace.

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<sup>30</sup> Source: [www.teleco.com.br](http://www.teleco.com.br)

| Operational Expenses            |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Pro-Forma (BRL Mn)              | 2011            | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
| Interconnection                 | 4,651.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         | 4,361.0         |
| % Change YoY                    | -8.3%           | -6.2%           | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            | 0.0%            |
| Personnel                       | 1,884.0         | 2,100.3         | 2,203.3         | 2,321.5         | 2,443.2         | 2,567.3         | 2,700.0         | 2,843.6         | 2,993.9         | 3,153.3         |
| % Change YoY                    | 16.2%           | 11.5%           | 4.9%            | 5.4%            | 5.2%            | 5.1%            | 5.2%            | 5.3%            | 5.3%            | 5.3%            |
| Materials                       | 192.0           | 124.0           | 130.3           | 136.3           | 142.8           | 149.5           | 155.6           | 162.0           | 168.0           | 173.5           |
| % of Revenues                   | 0.7%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            |
| Handset costs/Other (COGS)      | 233.0           | 556.3           | 584.5           | 611.3           | 640.5           | 670.3           | 698.0           | 726.3           | 753.4           | 778.0           |
| % of Revenues                   | 0.8%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| % Change YoY                    | 55.3%           | 138.7%          | 5.1%            | 4.6%            | 4.8%            | 4.6%            | 4.1%            | 4.1%            | 3.7%            | 3.3%            |
| Third Party Services            | 7,483.0         | 7,935.4         | 8,338.0         | 8,720.6         | 9,137.3         | 9,562.1         | 9,956.8         | 10,360.5        | 10,748.4        | 11,098.2        |
| % of Revenues                   | 26.8%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           | 28.6%           |
| Marketing                       | 558.0           | 567.5           | 596.3           | 623.7           | 653.5           | 683.8           | 712.1           | 740.9           | 768.7           | 793.7           |
| % of Revenues                   | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            | 2.0%            |
| % Change YoY                    | 3.9%            | 1.7%            | 5.1%            | 4.6%            | 4.8%            | 4.6%            | 4.1%            | 4.1%            | 3.7%            | 3.3%            |
| Rent and Insurance              | 1,657.0         | 1,813.8         | 1,902.7         | 2,004.8         | 2,109.9         | 2,217.1         | 2,331.7         | 2,455.7         | 2,585.5         | 2,723.1         |
| % Change YoY                    | 8.8%            | 9.5%            | 4.9%            | 5.4%            | 5.2%            | 5.1%            | 5.2%            | 5.3%            | 5.3%            | 5.3%            |
| Provision for Bad Debts         | 825.0           | 697.4           | 732.7           | 766.4           | 803.0           | 840.3           | 875.0           | 910.5           | 944.6           | 975.3           |
| % of Revenues                   | 3.0%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            | 2.5%            |
| Other Operating Expenses        | 1,656.0         | 1,283.0         | 1,345.9         | 1,418.1         | 1,492.5         | 1,568.3         | 1,649.3         | 1,737.0         | 1,828.8         | 1,926.2         |
| % Change YoY                    | -21.7%          | -22.5%          | 4.9%            | 5.4%            | 5.2%            | 5.1%            | 5.2%            | 5.3%            | 5.3%            | 5.3%            |
| <b>Total Operating Expenses</b> | <b>19,139.0</b> | <b>19,438.7</b> | <b>20,194.7</b> | <b>20,963.7</b> | <b>21,783.8</b> | <b>22,619.8</b> | <b>23,439.4</b> | <b>24,297.4</b> | <b>25,152.3</b> | <b>25,982.2</b> |

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Figure 23

## 16 – Depreciations and Capex

I have constructed a Capex Map. All the Fixed and Intangible assets are telling me how much I am investing and the depreciation rate that I am using. From 2013, I assumed a 12% depreciation rate and that the company never sells its tangible and intangible assets. Several questions are poised over the company due to its Capex plan – will it be able to invest in 4G and FTTH as it intends to do? And to where will its FTTH infrastructure spread? Will the company have financial strength to implement it?

$$\text{Assets}_t = \text{Assets}_{t-1} + \text{Capex}_t - \text{Depreciations}_t - \text{Asset Sales}_t$$

<sup>31</sup> For Quarterly Data, please consult Appendix 4

| Capex               |                |                |                |                |                |                |                |                |                |                |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| BRL (Mn)            | 2011           | 2012 E         | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         |
| Network             | 3,890.0        | 3,568.1        | 3,603.8        | 3,639.8        | 3,567.0        | 3,567.0        | 3,495.7        | 3,425.8        | 3,357.3        | 3,290.1        |
| % Change YoY        | 73.0%          | -8.3%          | 1.0%           | 1.0%           | -2.0%          | 0.0%           | -2.0%          | -2.0%          | -2.0%          | -2.0%          |
| % of Total Capex    | 78.4%          | 58.5%          | 55.7%          | 53.8%          | 51.1%          | 50.1%          | 49.6%          | 50.2%          | 52.1%          | 54.0%          |
| IT Services         | 287.0          | 304.0          | 307.1          | 310.2          | 304.0          | 297.9          | 297.9          | 297.9          | 297.9          | 297.9          |
| % Change YoY        | 27.0%          | 5.9%           | 1.0%           | 1.0%           | -2.0%          | -2.0%          | 0.0%           | 0.0%           | 0.0%           | 0.0%           |
| % of Total Capex    | 5.8%           | 5.0%           | 4.7%           | 4.6%           | 4.4%           | 4.2%           | 4.2%           | 4.4%           | 4.6%           | 4.9%           |
| 4G License + Others | 784.0          | 2,230.3        | 2,564.8        | 2,821.3        | 3,103.4        | 3,258.6        | 3,258.6        | 3,095.6        | 2,786.1        | 2,507.5        |
| % Change YoY        | 27.5%          | 184.5%         | 15.0%          | 10.0%          | 10.0%          | 5.0%           | 0.0%           | -5.0%          | -10.0%         | -10.0%         |
| % of Total Capex    | 15.8%          | 36.5%          | 39.6%          | 41.7%          | 44.5%          | 45.7%          | 46.2%          | 45.4%          | 43.3%          | 41.1%          |
| <b>Total</b>        | <b>4,961.0</b> | <b>6,102.4</b> | <b>6,475.7</b> | <b>6,771.3</b> | <b>6,974.4</b> | <b>7,123.5</b> | <b>7,052.1</b> | <b>6,819.3</b> | <b>6,441.2</b> | <b>6,095.5</b> |
| % of Revenues       | 17.8%          | 22.0%          | 22.2%          | 22.2%          | 21.8%          | 21.3%          | 20.2%          | 18.8%          | 17.1%          | 15.7%          |

Figure 24

| Depreciations                   |         |         |         |         |         |         |         |         |         |         |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BRL (Mn)                        | 2011    | 2012 E  | 2013 E  | 2014 E  | 2015 E  | 2016 E  | 2017 E  | 2018 E  | 2019 E  | 2020 E  |
| Depreciations and Amortizations | 1,044.1 | 4,222.1 | 4,832.2 | 5,029.4 | 5,238.4 | 5,446.8 | 5,648.0 | 5,816.5 | 5,936.8 | 5,997.3 |
| % of Assets                     | 15.7%   | 14.5%   | 12.0%   | 12.0%   | 12.0%   | 12.0%   | 12.0%   | 12.0%   | 12.0%   | 12.0%   |

Figure 25

| Fixed and Intangible Assets |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|-----------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| BRL (Mn)                    | 2011           | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
| Fixed Assets                | 5,794.0        | 24,145.1        | 25,130.5        | 26,174.9        | 27,215.8        | 28,221.2        | 29,063.1        | 29,664.5        | 29,966.9        | 30,025.7        |
| % Total                     | 84.2%          | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           |
| Intangible Assets           | 1,085.0        | 16,199.7        | 16,860.9        | 17,561.6        | 18,260.0        | 18,934.5        | 19,499.4        | 19,902.8        | 20,105.8        | 20,145.2        |
| % Total                     | 15.8%          | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           |
| <b>Total</b>                | <b>6,879.0</b> | <b>40,268.3</b> | <b>41,911.8</b> | <b>43,653.7</b> | <b>45,389.6</b> | <b>47,066.3</b> | <b>48,470.5</b> | <b>49,473.3</b> | <b>49,977.8</b> | <b>50,075.9</b> |

Figure 26

## 17 – P&L and Balance Sheet Construction

First, for the period T I had to construct a Cash Map, where:

$$\text{Final Cash}_T = \text{Initial Cash}_T - \text{Capex}_T + \text{Gross Debt Variation}_T - \text{Dividends}_T + \text{Operating Cash Flow}_T + \text{Asset Sales}_T - \text{Change in Operational Non-Current Assets}_T$$

Where:

$$\text{Operating Cash Flow}_T = \text{EBITDA}_T - \text{Interests Paid}_T - \text{Taxes Paid}_T - \text{NWC}_T$$

| Cash Map                                 |                |                |                |                |                |                |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| BRL (Mn)                                 | Q3 2012        | Q4 2012        | 2012 E         | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         |
| Initial Cash                             | 5,023.0        | 4,541.1        |                | 4,341.2        | 4,266.5        | 4,783.0        | 5,406.9        | 6,855.8        | 6,179.8        | 5,350.3        | 5,269.9        |
| Capex                                    | 1,633.3        | 2,018.1        |                | 6,475.7        | 6,771.3        | 6,974.4        | 7,123.5        | 7,052.1        | 6,819.3        | 6,441.2        | 6,095.5        |
| Gross Debt Variation                     | 176.4          | 176.4          |                | 2,405.6        | 2,851.2        | 1,815.2        | 3,344.0        | 753.8          | 0.0            | 0.0            | 0.0            |
| Dividends                                | 1,000.0        | 0.0            |                | 2,000.0        | 2,000.0        | 1,000.0        | 2,000.0        | 2,000.0        | 2,000.0        | 2,000.0        | 2,000.0        |
| Operating Cash Flow                      | 1,936.1        | 1,550.5        |                | 6,143.5        | 6,561.7        | 6,924.7        | 7,372.8        | 7,743.2        | 8,107.5        | 8,464.6        | 8,783.0        |
| Change in Operational Non-Current Assets | -38.9          | -91.3          |                | 148.1          | 125.2          | 141.6          | 144.4          | 120.9          | 117.7          | 103.7          | 75.4           |
| <b>Final Cash</b>                        | <b>4,541.1</b> | <b>4,341.2</b> | <b>4,341.2</b> | <b>4,266.5</b> | <b>4,783.0</b> | <b>5,406.9</b> | <b>6,855.8</b> | <b>6,179.8</b> | <b>5,350.3</b> | <b>5,269.9</b> | <b>5,882.1</b> |

Figure 27

| Operating Cash Flow Map    |                |                |                |                |                |                |                |                |                |                |  |
|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|
| BRL (Mn)                   | Q3 2012        | Q4 2012        | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         |  |
| EBITDA                     | 2,117.9        | 2,047.5        | 8,970.7        | 9,540.1        | 10,177.6       | 10,827.5       | 11,388.3       | 11,942.3       | 12,444.4       | 12,838.1       |  |
| Interests                  | -486.5         | -499.8         | -1,966.1       | -2,162.4       | -2,348.1       | -2,443.5       | -2,596.0       | -2,708.1       | -2,772.4       | -2,778.6       |  |
| Taxes Paid                 | 138.7          | 109.4          | 651.7          | 704.5          | 777.3          | 881.2          | 943.3          | 1,025.3        | 1,120.6        | 1,218.6        |  |
| Net Working Capital        | -443.5         | -112.2         | 209.4          | 111.5          | 127.5          | 130.0          | 105.8          | 101.4          | 86.9           | 57.8           |  |
| <b>Operating Cash Flow</b> | <b>1,936.1</b> | <b>1,550.5</b> | <b>6,143.5</b> | <b>6,561.7</b> | <b>6,924.7</b> | <b>7,372.8</b> | <b>7,743.2</b> | <b>8,107.5</b> | <b>8,464.6</b> | <b>8,783.0</b> |  |

Figure 28

For the Interests Paid, I used the Net Debt (Financial Debt less Cash and other financial items) of the previous period multiplied by the SELIC plus 0.5% (it is the reference rate that the company uses for issuing new bonds). In my model, Oi's earnings on Portugal Telecom's stock price are based on the financial results as Oi consolidates its stake by the Equity Method.

| BRL (Mn)               | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Gross Debt             | 32,097.5        | 34,555.4        | 37,468.5        | 39,323.1        | 42,739.7        | 43,509.9        | 43,509.9        | 43,509.9        | 43,509.9        |
| Cash                   | 6,728.2         | 6,653.5         | 7,170.0         | 7,793.9         | 9,242.8         | 8,566.8         | 7,737.3         | 7,656.9         | 8,269.1         |
| <b>Net Debt</b>        | <b>25,369.4</b> | <b>27,901.8</b> | <b>30,298.5</b> | <b>31,529.2</b> | <b>33,496.9</b> | <b>34,943.1</b> | <b>35,772.6</b> | <b>35,853.0</b> | <b>35,240.8</b> |
| <b>Net Debt/EBITDA</b> | <b>3.05</b>     | <b>3.11</b>     | <b>3.18</b>     | <b>3.10</b>     | <b>3.09</b>     | <b>3.07</b>     | <b>3.00</b>     | <b>2.88</b>     | <b>2.75</b>     |

Figure 29

For Financial Debt:

$$\text{Financial Debt}_T = \text{Financial Debt}_{T-1} + \text{Financial Debt Gross Raise}_T - \text{Financial Debt Gross Amortization}_T$$

I have assumed as constant the percentage of the Financial Debt that is classified as current and non-current. Every time the company pays or increases its financial debt, I adjust the model (as the company doesn't disclose the maturity of its financial obligations). The only information that the company provides is the Debt maturing until 2016 and the amount that needs to be paid from that year to the future. As a result, I had to assume when payments would be made in the future. As for the new debt raised by the company, as the company in the short-run will need cash to finance its operations, I assumed that until 2017 it will raise 1.8x the debt paid for that year, from 2018 until 2020 the amounts paid and issued would be equal, and from 2020 forward it would be 1.5x.<sup>32</sup>

For the Tax Rate, I have assumed a Rate of 30%, slightly below what Brazilian companies pay due to some tax savings that companies are able to do.

For Non-Controlling Interests I have considered them flat due to their small impact on the company's results.

For the NWC Map, I have used Current Assets less Current Liabilities (without cash, finance loans and investments, and all non-operating items). I considered constant the number of days to receive/pay these assets although the IR of the company stated that they will try to be more efficient managing their balance sheet in the future.

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<sup>32</sup> For the Debt Map, please consult Appendix 5

## Net Working Capital Map

| BRL (Mn)                      | 2011           | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|-------------------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Total</b>                  | <b>5,150.0</b> | <b>11,789.0</b> | <b>12,062.2</b> | <b>12,441.4</b> | <b>12,854.4</b> | <b>13,275.5</b> | <b>13,666.6</b> | <b>14,066.7</b> | <b>14,451.2</b> | <b>14,797.9</b> |
| Accounts Receivable           | 2,010.0        | 5,718.6         | 5,914.1         | 6,185.5         | 6,481.1         | 6,782.4         | 7,062.3         | 7,348.6         | 7,623.8         | 7,871.9         |
| <i>Number of Days</i>         |                | 73.0            | 73.0            | 73.0            | 73.0            | 73.0            | 73.0            | 73.0            | 73.0            | 73.0            |
| Recoverable Taxes             | 1,137.0        | 1,993.5         | 2,061.6         | 2,156.2         | 2,259.2         | 2,364.3         | 2,461.9         | 2,561.7         | 2,657.6         | 2,744.1         |
| <i>Number of Days</i>         |                | 25.4            | 25.4            | 25.4            | 25.4            | 25.4            | 25.4            | 25.4            | 25.4            | 25.4            |
| Inventories                   | 13.0           | 278.9           | 288.5           | 301.7           | 316.1           | 330.8           | 344.5           | 358.5           | 371.9           | 384.0           |
| <i>Number of Days</i>         |                | 3.6             | 3.6             | 3.6             | 3.6             | 3.6             | 3.6             | 3.6             | 3.6             | 3.6             |
| Assets in Escrow              | 1,651.0        | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         |
| Other Current Assets          | 339.0          | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         |
| <b>Total</b>                  | <b>7,143.0</b> | <b>9,055.7</b>  | <b>9,119.4</b>  | <b>9,387.2</b>  | <b>9,672.7</b>  | <b>9,963.7</b>  | <b>10,249.0</b> | <b>10,547.8</b> | <b>10,845.4</b> | <b>11,134.3</b> |
| Suppliers                     | 1,973.0        | 4,152.1         | 4,190.1         | 4,349.7         | 4,519.8         | 4,693.3         | 4,863.3         | 5,041.4         | 5,218.7         | 5,390.9         |
| <i>Number of Days</i>         |                | 74.7            | 74.7            | 74.7            | 74.7            | 74.7            | 74.7            | 74.7            | 74.7            | 74.7            |
| Others                        | 5,170.0        | 4,903.6         | 4,929.3         | 5,037.5         | 5,152.8         | 5,270.4         | 5,385.7         | 5,506.4         | 5,626.6         | 5,743.3         |
| Payrolls and Related Accruals | 130.0          | 535.0           | 539.9           | 560.5           | 582.4           | 604.7           | 626.7           | 649.6           | 672.5           | 694.6           |
| <i>Number of Days</i>         |                | 9.6             | 9.6             | 9.6             | 9.6             | 9.6             | 9.6             | 9.6             | 9.6             | 9.6             |
| Provisions                    | 1,361.0        | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         |
| Taxes                         | 1,664.0        | 2,279.6         | 2,300.4         | 2,388.0         | 2,481.4         | 2,576.7         | 2,670.0         | 2,767.8         | 2,865.2         | 2,959.7         |
| <i>Number of Days</i>         |                | 41.0            | 41.0            | 41.0            | 41.0            | 41.0            | 41.0            | 41.0            | 41.0            | 41.0            |
| Other Accounts                | 2,015.0        | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         |

33

Figure 30

For dividends, I considered that the company will follow its Guidance and pay BRL5bn from 2013 until 2015. But soon the company will start to have large cash needs. Therefore, I expect that in the future dividends will remain flat. I do not believe that the company will cut them in the future, as that would have a very negative market impact.

I considered that only Non-Current Taxes (both in assets and in liabilities) were operating Non-Current items. For both of them I considered constant the number of days to the Operating Revenues / Opex. I considered constant the following Non-Current items from the Balance Sheet:

- Financial Investments and Derivatives due to its small amount (and importance for the company) and because they aren't operational in nature;
- Assets in Escrow, as they depend of judicial decisions and not from operational activities of the company;
- Other Assets and others, as their amount is small and they consist of several different types of assets which shouldn't change much in the future;
- As for Fixed Assets and Intangibles, I constructed a Capex Map, as stated before. On the Non-Current Liabilities I considered constant:

<sup>33</sup> For Quarterly Data, please consult Appendix 6

- Contingency Provisions as they are dependent on judicial decisions;
- The Pension Fund as it accounts for a small amount of the company's assets;
- Outstanding Authorizations and Other accounts which I assumed constant as they too aren't operational in nature.

Having all those variables related, I was able to construct a Balance Sheet and a P&L.

| Oi's Balance Sheet                    |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Consolidated (BRL Mn)                 | 2010            | 2011            | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
| <b>Current Assets</b>                 | <b>8,487.0</b>  | <b>12,246.0</b> | <b>18,615.2</b> | <b>18,813.7</b> | <b>19,709.5</b> | <b>20,746.3</b> | <b>22,616.3</b> | <b>22,331.4</b> | <b>21,902.1</b> | <b>22,206.2</b> | <b>23,165.1</b> |
| Cash and Cash Equivalents             | 3,217.0         | 6,005.0         | 4,341.2         | 4,266.5         | 4,783.0         | 5,406.9         | 6,855.8         | 6,179.8         | 5,350.3         | 5,269.9         | 5,882.1         |
| Financial Investments                 | 832.0           | 1,084.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         | 2,325.0         |
| Derivatives                           | 0.0             | 7.0             | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           | 160.0           |
| Accounts Receivable                   | 2,070.0         | 2,010.0         | 5,718.6         | 5,914.1         | 6,185.5         | 6,481.1         | 6,782.4         | 7,062.3         | 7,348.6         | 7,623.8         | 7,871.9         |
| Recoverable Taxes                     | 752.0           | 1,137.0         | 1,993.5         | 2,061.6         | 2,156.2         | 2,259.2         | 2,364.3         | 2,461.9         | 2,561.7         | 2,657.6         | 2,744.1         |
| Inventories                           | 14.0            | 13.0            | 278.9           | 288.5           | 301.7           | 316.1           | 330.8           | 344.5           | 358.5           | 371.9           | 384.0           |
| Assets in Escrow                      | 1,384.0         | 1,651.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         | 2,299.0         |
| Other Current Assets                  | 218.0           | 339.0           | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         | 1,499.0         |
| <b>Non Current Assets</b>             | <b>18,398.0</b> | <b>19,418.0</b> | <b>58,851.1</b> | <b>60,878.3</b> | <b>62,985.2</b> | <b>65,118.4</b> | <b>67,199.8</b> | <b>68,979.7</b> | <b>70,366.1</b> | <b>71,238.1</b> | <b>71,667.1</b> |
| Long Term                             | 11,758.0        | 12,531.0        | 18,428.3        | 18,808.9        | 19,170.7        | 19,564.6        | 19,966.1        | 20,339.2        | 20,720.8        | 21,087.5        | 21,418.2        |
| Taxes                                 | 5,449.0         | 5,161.0         | 7,501.3         | 7,881.9         | 8,243.7         | 8,637.6         | 9,039.1         | 9,412.2         | 9,793.8         | 10,160.5        | 10,491.2        |
| Financial Investments                 | 0.0             | 13.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            | 62.0            |
| Assets in Escrow                      | 4,266.0         | 4,955.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         | 9,088.0         |
| Derivatives                           | 0.0             | 0.0             | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           | 537.0           |
| Other Assets                          | 2,043.0         | 2,402.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         | 1,240.0         |
| Investments                           | 5.0             | 8.0             | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            | 78.0            |
| Fixed Assets                          | 5,317.0         | 5,794.0         | 24,145.1        | 25,130.5        | 26,174.9        | 27,215.8        | 28,221.2        | 29,063.1        | 29,664.5        | 29,966.9        | 30,025.7        |
| % of Intangible assets + Fixed Assets | 80.1%           | 84.2%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           | 60.0%           |
| Intangible Assets                     | 1,318.0         | 1,085.0         | 16,199.7        | 16,860.9        | 17,561.6        | 18,260.0        | 18,934.5        | 19,499.4        | 19,902.8        | 20,105.8        | 20,145.2        |
| % of Intangible assets + Fixed Assets | 19.9%           | 15.8%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           | 40.2%           |
| <b>Total Assets</b>                   | <b>26,885.0</b> | <b>31,664.0</b> | <b>77,466.4</b> | <b>79,692.1</b> | <b>82,694.7</b> | <b>85,864.7</b> | <b>89,816.1</b> | <b>91,311.1</b> | <b>92,268.1</b> | <b>93,444.3</b> | <b>94,832.2</b> |
| <b>Current Liabilities</b>            | <b>6,691.0</b>  | <b>8,621.0</b>  | <b>14,412.5</b> | <b>14,734.0</b> | <b>15,307.2</b> | <b>15,787.1</b> | <b>16,436.4</b> | <b>16,802.5</b> | <b>17,101.3</b> | <b>17,398.9</b> | <b>17,687.8</b> |
| Suppliers                             | 1,821.0         | 1,973.0         | 4,152.1         | 4,190.1         | 4,349.7         | 4,519.8         | 4,693.3         | 4,863.3         | 5,041.4         | 5,218.7         | 5,390.9         |
| Loans and Financing                   | 1,044.0         | 1,144.0         | 3,297.3         | 3,544.4         | 3,837.3         | 4,023.7         | 4,367.2         | 4,444.7         | 4,444.7         | 4,444.7         | 4,444.7         |
| % of Gross Debt                       | 23.5%           | 14.1%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           | 10.3%           |
| Financial Instruments                 | 71.0            | 26.0            | 141.6           | 152.2           | 164.7           | 172.7           | 187.5           | 190.8           | 190.8           | 190.8           | 190.8           |
| % of Gross Debt                       | 1.6%            | 0.3%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            | 0.4%            |
| Others                                | 3,755.0         | 5,478.0         | 6,821.6         | 6,847.3         | 6,955.5         | 7,070.8         | 7,188.4         | 7,303.7         | 7,424.4         | 7,544.6         | 7,661.3         |
| Payroll and Related Accruals          | 172.0           | 130.0           | 535.0           | 539.9           | 560.5           | 582.4           | 604.7           | 626.7           | 649.6           | 672.5           | 694.6           |
| Provisions                            | 1,315.0         | 1,361.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         | 1,659.0         |
| Taxes                                 | 1,088.0         | 1,664.0         | 2,279.6         | 2,300.4         | 2,388.0         | 2,481.4         | 2,576.7         | 2,670.0         | 2,767.8         | 2,865.2         | 2,959.7         |
| Dividends                             | 569.0           | 308.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           | 259.0           |
| Other Accounts                        | 611.0           | 2,015.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         | 2,089.0         |
| <b>Non-Current Liabilities</b>        | <b>8,859.0</b>  | <b>12,456.0</b> | <b>42,735.3</b> | <b>45,167.9</b> | <b>48,012.2</b> | <b>49,924.6</b> | <b>53,240.1</b> | <b>54,181.6</b> | <b>54,445.6</b> | <b>54,708.5</b> | <b>54,963.8</b> |
| Loans and Financing                   | 3,321.0         | 6,962.0         | 29,209.1        | 31,398.3        | 33,992.9        | 35,644.7        | 38,687.8        | 39,373.8        | 39,373.8        | 39,373.8        | 39,373.8        |
| % of Gross Debt                       | 74.86%          | 85.69%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          | 91.00%          |
| Financial Instruments                 | 0.0             | 0.0             | 146.6           | 157.6           | 170.6           | 178.9           | 194.2           | 197.6           | 197.6           | 197.6           | 197.6           |
| % of Gross Debt                       | 0.0%            | 0.0%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            | 0.5%            |
| Taxes                                 | 1,099.0         | 910.0           | 5,979.5         | 6,212.1         | 6,448.7         | 6,700.9         | 6,958.1         | 7,210.2         | 7,474.1         | 7,737.1         | 7,992.4         |
| Contingency Provisions                | 3,060.0         | 3,132.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         | 5,212.0         |
| Provisions for the Pension Fund       | 576.0           | 546.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           | 446.0           |
| Outstanding Authorizations            | 573.0           | 544.0           | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         | 1,061.0         |
| Other Accounts Payable                | 230.0           | 362.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           | 681.0           |
| <b>Total Liabilities</b>              | <b>15,550.0</b> | <b>21,077.0</b> | <b>57,147.8</b> | <b>59,901.9</b> | <b>63,319.3</b> | <b>65,711.7</b> | <b>69,676.5</b> | <b>70,984.2</b> | <b>71,546.8</b> | <b>72,107.4</b> | <b>72,651.6</b> |
| <b>Shareholder's Equity</b>           | <b>11,336.0</b> | <b>10,589.0</b> | <b>20,318.6</b> | <b>19,790.1</b> | <b>19,375.4</b> | <b>20,153.0</b> | <b>20,139.6</b> | <b>20,327.0</b> | <b>20,721.3</b> | <b>21,336.9</b> | <b>22,180.6</b> |
| Controlling Interest                  | 11,336.0        | 10,589.0        | 20,275.6        | 19,747.1        | 19,332.4        | 20,110.0        | 20,096.6        | 20,284.0        | 20,678.3        | 21,293.9        | 22,137.6        |
| Minority Interest                     | 0.0             | 0.0             | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            | 43.0            |
| <b>Equity + Liabilities</b>           | <b>26,886.0</b> | <b>31,666.0</b> | <b>77,466.4</b> | <b>79,692.1</b> | <b>82,694.7</b> | <b>85,864.7</b> | <b>89,816.1</b> | <b>91,311.1</b> | <b>92,268.1</b> | <b>93,444.3</b> | <b>94,832.2</b> |

Figure 31

| Oi's P&L                                       |                 |                |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|--|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| BRL (Mn)                                       | 2010            | 2011           | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
| Net Operating Revenues                         | 29,480.0        | 27,908.0       | 27,757.0        | 29,165.4        | 30,503.8        | 31,961.4        | 33,447.3        | 34,827.7        | 36,239.8        | 37,596.7        | 38,820.3        |
| Operating Expenses                             | 19,184.0        | 19,139.0       | 19,438.7        | 20,194.7        | 20,963.7        | 21,783.8        | 22,619.8        | 23,439.4        | 24,297.4        | 25,152.3        | 25,982.2        |
| <b>EBITDA Pro-Forma</b>                        | <b>10,296.0</b> | <b>8,769.0</b> | <b>8,318.3</b>  | <b>8,970.7</b>  | <b>9,540.1</b>  | <b>10,177.6</b> | <b>10,827.5</b> | <b>11,388.3</b> | <b>11,942.3</b> | <b>12,444.4</b> | <b>12,838.1</b> |
| <b>EBITDA Consolidated</b>                     | <b>3,516.2</b>  | <b>2,611.5</b> | <b>7,455.8</b>  | <b>8,970.7</b>  | <b>9,540.1</b>  | <b>10,177.6</b> | <b>10,827.5</b> | <b>11,388.3</b> | <b>11,942.3</b> | <b>12,444.4</b> | <b>12,838.1</b> |
| Depreciation and Amortization                  | 1,056.9         | 1,044.1        | 4,222.1         | 4,832.2         | 5,029.4         | 5,238.4         | 5,446.8         | 5,648.0         | 5,816.5         | 5,936.8         | 5,997.3         |
| <b>EBIT</b>                                    | <b>2,459.3</b>  | <b>1,567.4</b> | <b>3,233.8</b>  | <b>4,138.5</b>  | <b>4,510.7</b>  | <b>4,939.2</b>  | <b>5,380.8</b>  | <b>5,740.3</b>  | <b>6,125.9</b>  | <b>6,507.6</b>  | <b>6,840.7</b>  |
| <b>Net Financial Income</b>                    | <b>-79.0</b>    | <b>-72.0</b>   | <b>-1,914.3</b> | <b>-1,966.1</b> | <b>-2,162.4</b> | <b>-2,348.1</b> | <b>-2,443.5</b> | <b>-2,596.0</b> | <b>-2,708.1</b> | <b>-2,772.4</b> | <b>-2,778.6</b> |
| <i>Average Cost of Debt</i>                    |                 |                | 11.0%           | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            | 7.8%            |
| <b>EBT</b>                                     | <b>2,380.3</b>  | <b>1,495.4</b> | <b>1,319.4</b>  | <b>2,172.4</b>  | <b>2,348.3</b>  | <b>2,591.1</b>  | <b>2,937.3</b>  | <b>3,144.3</b>  | <b>3,417.8</b>  | <b>3,735.2</b>  | <b>4,062.1</b>  |
| Taxes  | 408.4           | 489.6          | 329.6           | 651.7           | 704.5           | 777.3           | 881.2           | 943.3           | 1,025.3         | 1,120.6         | 1,218.6         |
| <i>% Taxes</i>                                 | 17.2%           | 32.7%          | 25.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           | 30.0%           |
| Net Income before non-controlling shareholders | 1,971.9         | 1,005.8        | 989.9           | 1,520.7         | 1,643.8         | 1,813.7         | 2,056.1         | 2,201.0         | 2,392.4         | 2,614.6         | 2,843.5         |
| Non-Controlling Shareholders                   | 0.0             | 0.0            | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             | 6.3             |
| <b>Net Income</b>                              | <b>1,971.9</b>  | <b>1,005.8</b> | <b>983.6</b>    | <b>1,514.4</b>  | <b>1,637.5</b>  | <b>1,807.4</b>  | <b>2,049.8</b>  | <b>2,194.7</b>  | <b>2,386.1</b>  | <b>2,608.3</b>  | <b>2,837.2</b>  |

Figure 32

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## 18 – Cost of Capital and Free-Cash-Flow

For the Free-Cash-Flow, I used the following formula:

$$\text{EBITDA}_T - \text{Capex}_T - \text{Taxes}_T - \text{NWC}_T$$

As for WACC I used:

$$R_e * E/V + R_d * (1 - T) * D/V$$

And for  $R_e$ :

$$R_f + B_L * \text{Market Premium} + \text{Country Risk Premium}$$

Where  $B_L$  was calculated through a regression of the price of Oi with Bovespa Index, adjusted by the Beta Merrill Lynch method.

The Country Risk Premium is the spread between Brazilian and US 10 Year Government Bond Yields (both underlying bonds quoted in US Dollars).

On D/V ratio, there is no rule regarding how to choose it but it should reflect the risk of the industry and of the company. It should be based on its optimal capital allocation. I chose 50%, slightly higher than the value used by the Investment Bank to which I am comparing my valuation with.

<sup>34</sup> For Quarterly Data, please consult Appendix 7

I have extended my forecasts through 2020. As we go further in the future the more difficult it is to forecast data. From then on I chose to use the inflation rate as the growth rate to calculate the company's terminal value. Although I could have used expected growth of the country's GDP, I preferred to use inflation, as growth potential of the company in the future should come under pressure due to a possible increase in price competition.

| FCFF Details                          |               |                |                |                |                |                |                |                |                |                |
|---------------------------------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| BRL (Mn)                              | 2012 E        | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         | Terminal value |
| EBITDA                                | 8,318.3       | 8,970.7        | 9,540.1        | 10,177.6       | 10,827.5       | 11,388.3       | 11,942.3       | 12,444.4       | 12,838.1       |                |
| Capex                                 | 6,102.4       | 6,475.7        | 6,771.3        | 6,974.4        | 7,123.5        | 7,052.1        | 6,819.3        | 6,441.2        | 6,095.5        |                |
| Taxes                                 | 329.6         | 651.7          | 704.5          | 777.3          | 881.2          | 943.3          | 1,025.3        | 1,120.6        | 1,218.6        |                |
| Change in working capital/other flows | 1,997.1       | 357.5          | 236.7          | 269.2          | 274.4          | 226.7          | 219.1          | 190.6          | 133.2          |                |
| <b>FCFF</b>                           | <b>-110.8</b> | <b>1,485.9</b> | <b>1,827.7</b> | <b>2,156.8</b> | <b>2,548.5</b> | <b>3,166.1</b> | <b>3,878.6</b> | <b>4,692.0</b> | <b>5,390.8</b> | <b>5,677.7</b> |

Figure 33

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## 19 – Valuation Results

### 19.1 – Sum-of-the-Parts (SoP)

| Oi's Cost of Capital |              |
|----------------------|--------------|
| Levered Beta         | 0.98         |
| Risk-Free Rate       | 9.5%         |
| Equity Risk Premium  | 10.0%        |
| Country Risk Premium | 0.9%         |
| Cost of Equity       | 20.2%        |
| Cost of Debt         | 7.8%         |
| Tax Rate             | 30.0%        |
| E/V                  | 50.0%        |
| <b>WACC</b>          | <b>12.8%</b> |
| Premium ON/PN        | 34.9%        |

Figure 34

Using a WACC of 12.8%, I valued Oi's operations in Brazil through a FCFF to the firm valuation model. I valued all these operations together as the company only provides revenue data from the four different sectors of the company. Too many assumptions would

<sup>35</sup> For Quarterly Data, please consult Appendix 8

have to be done to value them separately, which would complicate my model too much and could deviate it from reality. Due to that I valued the Brazilian Operations of the company as a whole.

For Portugal Telecom, I used the same method as for Oi, which I will explain further in the chapter dedicated to Portugal Telecom. As I valued the company in Euros, I had to convert the Equity holding that Oi holds (10%) in Portugal Telecom at the EURBRL Spot Rate.

I took the Spot and the Futures prices off BRLUSD and EURUSD from Bloomberg to compute the value of the equity stake that Portugal Telecom has in Oi.

| <b>Main Currency Rates</b> |               |               |               |                      |
|----------------------------|---------------|---------------|---------------|----------------------|
|                            | <b>BRLUSD</b> | <b>EURUSD</b> | <b>USDEUR</b> | <b>BRLEUR</b>        |
| Spot (October 15)          | 0.4912        | 1.2949        | 0.7723        | 0.3794               |
| Mar13                      | 0.4663        | 1.3065        | 0.7654        | 0.3569               |
| Jun13                      | 0.4606        | 1.3080        | 0.7645        | 0.3521               |
| Sep13                      | 0.4548        | 1.3094        | 0.7637        | 0.3473               |
| Dec13                      | 0.4491        | 1.3111        | 0.7627        | 0.3425               |
| Mar14                      | 0.4434        | 1.3126        | 0.7618        | 0.3378 <sup>36</sup> |

Figure 35

From March 2014 onwards there weren't contracts available for the BRLEUR. I decided to construct Forward Rates until 2020. For that, I assumed that the SELIC rate and ECB's Refi rate would stay constant at 7.5% and 0.75% respectively, using the following formula:

$$\text{EURBRL}_t = \text{EURBRL}_{t-1} * (1+\text{REFI}_t) / (1+\text{SELIC}_t)$$

As Portugal Telecom has a holding of 23.6% in Oi's capital and as Oi has a 10% stake in Portugal Telecom's Equity, I valued Portugal Telecom without taking into account its participation in Oi in order to avoid double counting.

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<sup>36</sup> Source: Bloomberg

| <b>Oi's Valuation - SoP</b>      |                 |
|----------------------------------|-----------------|
| Oi Operations EV (BRL mn)        | 33,884.6        |
| Net Debt (BRL mn)                | 25,369.4        |
| Portugal Telecom (BRL mn)        | 1,436.7         |
| <b>Equity Value (BRL mn)</b>     | <b>35,321.3</b> |
| <b>Target Price Oi BR4 (BRL)</b> | <b>5.47</b>     |
| Upside (Downside)                | -35.4%          |
| <b>Target Price Oi BR3 (BRL)</b> | <b>7.38</b>     |
| Upside (Downside)                | -29.5%          |

Figure 36

To estimate the premium between Ordinary and Preferred stocks, I used a median historical deviation between the prices of the stocks. This difference should reflect a premium that Ordinary Stocks should have over Preferred Stocks, due to their voting rights. I arrived at a price target of BRL5.47 for the Preferred Shares of Oi, which supports an Underweight recommendation with a downside potential of 35.4%. For Common Shares of Oi I arrived to a price of BRL7.38, with an Underweight recommendation too as the stock has a downside potential of 29.5%.

| <b>Ratios</b>                 |      |      |
|-------------------------------|------|------|
| <b>ROA</b>                    | 2012 | 1.8% |
|                               | 2013 | 1.9% |
|                               | 2014 | 2.0% |
| <b>ROE</b>                    | 2012 | 6.4% |
|                               | 2013 | 7.6% |
|                               | 2014 | 8.4% |
| <b>Net Debt / Equity</b>      | 2012 | 1.3  |
|                               | 2013 | 1.4  |
|                               | 2014 | 1.6  |
| <b>EBIT Interest Coverage</b> | 2012 | 1.7  |
|                               | 2013 | 2.1  |
|                               | 2014 | 2.1  |

Figure 37

We also observe that the company will present low levels of return for their assets and its leverage should increase in the future (Net Debt / Equity). But, as the company increases its revenues, its Interest Coverage should start increasing.

To choose how to provide a price recommendation, I used the UBS method, according to which, if a stock's fair price is 6% higher than its market price it will be an Overweight, if it is 6% lower, would be Underweight. Between the two, it will justify a Hold recommendation.

## 19.2 – Sensitivity Analysis

| <b>Sensitivity Analysis - Preferred Stock</b> |               |               |               |
|---|---------------|---------------|---------------|
| <b>Beta</b>                                   | <b>0.88</b>   | <b>0.98</b>   | <b>1.08</b>   |
| Price per Share (BRL)                         | 7.19          | 5.47          | 3.98          |
| <b>R<sub>f</sub></b>                          | <b>8.5%</b>   | <b>9.5%</b>   | <b>10.5%</b>  |
| Price per Share (BRL)                         | 5.51          | 5.47          | 5.43          |
| <b>Cost of Debt</b>                           | <b>7.25%</b>  | <b>7.75%</b>  | <b>8.25%</b>  |
| Price per Share (BRL)                         | 5.75          | 5.47          | 5.21          |
| <b>Risk Premium</b>                           | <b>9%</b>     | <b>10%</b>    | <b>11%</b>    |
| Price per Share (BRL)                         | 7.15          | 5.47          | 4.01          |
| <b>WACC</b>                                   | <b>11.81%</b> | <b>12.81%</b> | <b>13.81%</b> |
| Price per Share (BRL)                         | 9.19          | 5.47          | 2.68          |
| <b>Tax Rate</b>                               | <b>29%</b>    | <b>30%</b>    | <b>31%</b>    |
| Price per Share (BRL)                         | 5.50          | 5.47          | 5.44          |
| <b>Long Term Inflation</b>                    | <b>4.32%</b>  | <b>5.32%</b>  | <b>6.32%</b>  |
| Price per Share (BRL)                         | 3.63          | 5.47          | 7.88          |

Figure 38

| <b>Sensitivity Analysis - Common Stock</b> |               |               |               |
|--|---------------|---------------|---------------|
| <b>Beta</b>                                | <b>0.88</b>   | <b>0.98</b>   | <b>1.08</b>   |
| Price per Share (BRL)                      | 9.70          | 7.38          | 5.37          |
| <b>R<sub>f</sub></b>                       | <b>8.5%</b>   | <b>9.5%</b>   | <b>10.5%</b>  |
| Price per Share (BRL)                      | 7.43          | 7.38          | 7.33          |
| <b>Cost of Debt</b>                        | <b>7.25%</b>  | <b>7.75%</b>  | <b>8.25%</b>  |
| Price per Share (BRL)                      | 7.75          | 7.38          | 7.03          |
| <b>Risk Premium</b>                        | <b>9%</b>     | <b>10%</b>    | <b>11%</b>    |
| Price per Share (BRL)                      | 9.64          | 7.38          | 5.41          |
| <b>WACC</b>                                | <b>11.81%</b> | <b>12.81%</b> | <b>13.81%</b> |
| Price per Share (BRL)                      | 12.40         | 7.38          | 3.61          |
| <b>Tax Rate</b>                            | <b>29%</b>    | <b>30%</b>    | <b>31%</b>    |
| Price per Share (BRL)                      | 7.41          | 7.38          | 7.34          |
| <b>Long Term Inflation</b>                 | <b>4.32%</b>  | <b>5.32%</b>  | <b>6.32%</b>  |
| Price per Share (BRL)                      | 4.89          | 7.38          | 10.63         |

Figure 39

As we can see, the variables that will weigh more on the model are a change in Beta, in Risk Premium, in WACC and in long term inflation. The first two will affect the cost of capital which is already high; the last will affect the Terminal Value of the company, which in a fast growing market such as Brazil, is really important. For the Sensitivity analysis I didn't use operational variables. This was due to the fact that each variable has certain assumptions for each year.

### 19.3 – Market Multiples

In respect to Market multiples I used the Price-Earnings-Ratio, the most used ratio for valuing a Company's Equity. I have determined the multiple for the next 3 years, in order to be protected from possible extraordinary cash-flows from some of the stocks that I chose for my peer group. The peer group was constructed using 2 rivals of Oi in Brazil - Telefónica Brasil and TIM. In South America I looked at América Móvil which operates in several

countries in Latin America and has a subsidiary in Brazil (Claro, one of the biggest rivals of Oi) and Entel Chile due to its presence in the South American market and especially Chile. These were mainly chosen for their business operations and because of the countries where they are present as well as the dimension of their operations.

**Telefónica Brasil:** Part of Telefónica Group, the company (previously Vivo) is an integrated operator that provides services for fixed and mobile telephony, data transmission or Paid TV. The company provides 3G services to its clients and fiber for Paid-TV. Market Leader in Mobile Phones in the country, the company operates only in Brazil.

**TIM Participações:** A subsidiary of Telecom Italia, the company is currently present in all Brazilian states providing mobile services through TIM Celular and Intelig Telecomunicações LTDA. The company is mainly focused on providing Fixed and Mobile communications with its 3G technology. Again, the company is one of the main competitors of Oi in the country. Given that it is also only present in Brazil, it is also a logical member of our peer group.

**América Móvil:** The Company provides wireless communications in 18 countries across the American continent. This was one of the reasons why the company was chosen, as it is present in fast growing markets in South America with similar risks as Brazil (inflation and political risk). The company is present in Brazil through Claro, one of the main rivals of Oi, and through Embratel. The company offers to its clients products with 3G technology. Other services such as Paid TV are also made available by the company. Brazil was even the largest region contributing to the revenue of the company, with 25.09% of total revenues in 2011<sup>37</sup>.

**Empresa Nacional de Telecomunicaciones (Entel Chile):** Entel offers telecommunications services in Chile, with mobile telephone being its core business. The company also provides other services such as Paid TV and broadband. The company was once again chosen due to its dimension and for being present in Chile, a South-American market which presents similarities with the Brazilian market.

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<sup>37</sup> Source: Bloomberg

| Company           | Bloomberg Ticker | 2012 - E<br>P/E | 2013 - E<br>P/E | 2014 - E<br>P/E |
|-------------------|------------------|-----------------|-----------------|-----------------|
| América Móvil     | AMXL MM Equity   | 12.3            | 11.7            | 10.3            |
| Entel Chile       | ENTEL CI Equity  | 12.4            | 11.7            | 11.8            |
| Telefónica Brasil | VIVT4 BZ Equity  | 10.5            | 9.8             | 9.0             |
| Tim Participações | TIMP3 BZ Equity  | 12.2            | 10.4            | 9.1             |
| <b>Average</b>    |                  | <b>11.8</b>     | <b>10.9</b>     | <b>10.0</b>     |
| Oi Preferred      | OIBR4 BZ Equity  | 14.1            | 9.2             | 8.5             |
| Oi Common         | OIBR3 BZ Equity  | 17.5            | 11.3            | 10.5            |

Figure 40

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| Stock        | Bloomberg Ticker | 2012<br>EPS (BRL) | 2013<br>EPS (BRL) | 2014<br>EPS (BRL) |
|--------------|------------------|-------------------|-------------------|-------------------|
| Oi Preferred | OIBR4 BZ Equity  | 0.6               | 0.9               | 1.0               |
| Oi Common    | OIBR3 BZ Equity  | 0.6               | 0.9               | 1.0               |

Figure 41

| Valuation Using Market Multiples (BRL) |                  |                               |                               |                               |
|--|------------------|-------------------------------|-------------------------------|-------------------------------|
| Stock                                  | Bloomberg Ticker | 2012 - E<br>Stock Price (BRL) | 2013 - E<br>Stock Price (BRL) | 2014 - E<br>Stock Price (BRL) |
| Oi Preferred                           | OIBR4 BZ Equity  | 7.1                           | 10.1                          | 10.0                          |
| Oi Common                              | OIBR3 BZ Equity  | 7.1                           | 10.1                          | 10.0                          |

Figure 42

Oi Common Stock market price (15<sup>th</sup> October) trades at a premium to the market. However Oi Preferred shares trade below to the average market multiple for 2013 and 2014.

<sup>38</sup> Source: Bloomberg, my estimates for Oi

## 19.4 – Investment Bank and Oi’s Guidance Comparison

I am more cautious for Oi than UBS as can be seen below:

P&L Comparison with UBS Estimates

| BRL (Mn)                      | 2012 E   |          | 2013 E   |          | 2014 E   |          | 2015 E   |          |
|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                               | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      |
| Total Revenues                | 27,757.0 | 28,187.0 | 29,165.4 | 29,871.0 | 30,503.8 | 32,178.0 | 31,961.4 | 34,230.0 |
| Residential                   | 9,913.4  | 9,948.0  | 10,454.3 | 10,372.0 | 10,830.8 | 10,738.0 | 11,227.6 | 11,354.0 |
| Mobile                        | 8,941.3  | 9,141.0  | 9,843.7  | 10,108.0 | 10,641.4 | 11,315.0 | 11,541.9 | 12,035.0 |
| Corporate                     | 8,321.0  | 8,520.0  | 8,321.0  | 8,854.0  | 8,518.0  | 9,615.0  | 8,709.1  | 10,331.0 |
| Others                        | 581.4    | 578.0    | 546.5    | 537.0    | 513.7    | 510.0    | 482.9    | 510.0    |
| EBITDA                        | 7,455.8  | 8,475.0  | 8,970.7  | 8,957.0  | 9,540.1  | 9,636.0  | 10,177.6 | 10,640.0 |
| EBITDA Margin (%)             | 26.86%   | 30.07%   | 30.76%   | 29.99%   | 31.28%   | 29.95%   | 31.84%   | 31.08%   |
| Financial Income / (Expenses) | -1,914.3 | -1,961.0 | -1,966.1 | -2,116.0 | -2,162.4 | -2,432.0 | -2,348.1 | -2,580.0 |
| EBT                           | 1,319.4  | 1,264.0  | 2,172.4  | 1,483.0  | 2,348.3  | 1,641.0  | 2,591.1  | 2,211.0  |
| Taxes                         | 329.6    | 344.0    | 651.7    | 504.0    | 704.5    | 558.0    | 777.3    | 752.0    |
| Tax Rate (%)                  | 24.98%   | 27.22%   | 30.00%   | 33.99%   | 30.00%   | 34.00%   | 30.00%   | 34.01%   |
| Minorities                    | 6.3      | 3.0      | 6.3      | 2.0      | 6.3      | 2.0      | 6.3      | 3.0      |
| Net Income                    | 983.6    | 917.0    | 1514.4   | 977.0    | 1637.5   | 1081.0   | 1807.4   | 1456.0   |

Figure 43

I am more bearish on revenues. The Brazilian economy is expected to maintain a modest pace of economic expansion. My Capex plan is higher than that assumed by UBS and the majority of the other investment banks who stick to company’s guidance. I believe that the company will have higher Capex needs as soon as it starts investing heavily in FTTH.

Miscellaneous Data: My Estimates vs UBS

| BRL (Mn)     | 2012     |          | 2013     |          | 2014     |          | 2015     |          | 2016     |          | 2017     |          | 2018     |          | 2019     |          | 2020     |          |
|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|              | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      | Mine     | UBS      |
| Revenues     | 27,757.0 | 25,214.0 | 29,165.4 | 29,872.0 | 30,503.8 | 32,178.0 | 31,961.4 | 34,231.0 | 33,447.3 | 35,957.0 | 34,827.7 | 37,575.0 | 36,239.8 | 39,266.0 | 37,596.7 | 41,033.0 | 38,820.3 | 42,879.0 |
| EBIT         | 3,233.8  | 3,063.0  | 4,138.5  | 3,431.0  | 4,510.7  | 3,844.0  | 4,939.2  | 4,479.0  | 5,380.8  | 5,396.0  | 5,740.3  | 5,701.0  | 6,125.9  | 6,022.0  | 6,507.6  | 6,361.0  | 6,840.7  | 6,719.0  |
| Taxes        | 329.6    | 834.0    | 651.7    | 1,166.0  | 704.5    | 1,307.0  | 777.3    | 1,523.0  | 881.2    | 1,835.0  | 943.3    | 1,938.0  | 1,025.3  | 2,048.0  | 1,120.6  | 2,163.0  | 1,218.6  | 2,284.0  |
| Tax Rate (%) | 24.98%   | 27.20%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   | 30.00%   | 34.00%   |
| D&A          | 4,222.1  | 4,548.0  | 4,832.2  | 5,526.0  | 5,029.4  | 5,792.0  | 5,238.4  | 6,162.0  | 5,446.8  | 6,292.0  | 5,648.0  | 6,348.0  | 5,816.5  | 6,398.0  | 5,936.8  | 6,442.0  | 5,997.3  | 6,479.0  |
| Capex        | 6,102.4  | 5,999.0  | 6,475.7  | 6,000.0  | 6,771.3  | 6,000.0  | 6,974.4  | 6,000.0  | 7,123.5  | 6,000.0  | 7,052.1  | 6,082.0  | 6,819.3  | 6,159.0  | 6,441.2  | 6,232.0  | 6,095.5  | 6,298.0  |
| NWC          | 1,997.1  | 0.0      | 357.5    | 159.0    | 236.7    | -79.0    | 269.2    | -173.0   | 274.4    | -314.0   | 226.7    | -188.0   | 219.1    | -196.0   | 190.6    | -205.0   | 133.2    | -214.0   |

Figure 44

Like me, UBS considered that the company would stabilize the number of days it uses to pay its NWC. But the analyst didn’t consider that for 2012, if we construct a NWC map, we would see that there were already movements during the first half of 2012 in the NWC which will affect the FCFF for the year. Also, the analyst didn’t consider movements on the non-current assets that could be dependent on operating data.

|                   | 2012 |          | 2015 |          |
|-------------------|------|----------|------|----------|
|                   | Mine | Guidance | Mine | Guidance |
| RGU's (mn)        | 75.0 | 74.9     | 83.5 | 106.8    |
| Residential       | 18.5 | 19.8     | 20.5 | 25.7     |
| Personal Mobility | 46.9 | 45.8     | 52.0 | 67.8     |
| B2B               | 9.6  | 9.3      | 10.9 | 13.3     |
| Revenues (BRL bn) | 27.8 | 29.9     | 32.0 | 38.6     |
| EBITDA (BRL bn)   | 7.5  | 8.8      | 10.2 | 12.8     |
| Capex (BRL bn)    | 6.1  | 6.0      | 7.0  | 6.0      |
| Net Debt (BRL bn) | 25.4 | 24.9     | 31.5 | 28.4     |

Figure 45

My forecasts are below the company's guidance. Consensus is also cautious and considers that the company is too optimistic.

One of the factors that I would like to stress is that I estimate a much higher Net Debt in 2015 than what is considered in the company's Guidance. This reflects higher Capex forecasts (this is not a variable cost and even if the company starts to have lower revenues, it will have to stick to its infrastructure plans). Many Investment Banks reduced Oi's Capex needs due to their view that the company won't achieve its revenues targets. This leads me to the fact that the company will have to raise debt during the following years to finance its activity. The company may face liquidity problems in the future, as its debt matures and its Capex needs to be financed. Equity Research has this advantage – it gives the analyst a fundamental look, useful to determine if a company can default in the future with its implication for the market value of its bonds.

| Oi's Cost of Capital | Mine         | UBS          |
|----------------------|--------------|--------------|
| Levered Beta         | 0.98         | 1.0          |
| Risk-Free Rate       | 9.5%         | 10.5%        |
| Equity Risk Premium  | 10.0%        | 4.5%         |
| Country Risk Premium | 0.9%         | 0.0%         |
| Cost of Equity       | 20.2%        | 15.0%        |
| Cost of Debt         | 7.8%         | 7.3%         |
| Tax Rate             | 30.0%        | 34.0%        |
| E/V                  | 50.0%        | 50.0%        |
| <b>WACC</b>          | <b>12.8%</b> | <b>11.1%</b> |
| Premium ON/PN        | 34.9%        | 19.5%        |

Figure 46

UBS used a 34% corporate tax rate. Although I don't believe that the company will be able to continue using the same tax rates of the past, I have considered that OI should be able to generate some tax benefits. Due to that, I don't agree with the 34% used by the Investment Bank, which is the marginal corporate tax rate in the country. I used instead a 30% tax rate. As said previously, for estimating the premium between Ordinary and Preferable stocks, I have used a median historical deviation between the prices of the stocks. It gave me a premium of 34.9% for Oi's Common shares over the Preferred shares. UBS used 19.5%. I established October 15<sup>th</sup> 2012 as the date to evaluate the company, although I should underline that some of the information that I used for my thesis was only available after this day. UBS's Research note is from August 21st 2012. Therefore I had access to more recent data on my valuation, when compared to that of UBS.

| Oi's Valuation - SoP      | Mine     | UBS      |
|---------------------------|----------|----------|
| Oi Operations EV (BRL mn) | 33,884.6 | 38,399.0 |
| Net Debt (BRL mn)         | 25,369.4 | 25,016.0 |
| Portugal Telecom (BRL mn) | 1,436.7  | 794.0    |
| Equity Value (BRL mn)     | 9,952.0  | 14,177.0 |
| Target Price OIBR4 (BRL)  | 5.47     | 7.70     |
| Upside (downside)         | -35.35%  | -8.98%   |
| Target Price OIBR3 (BRL)  | 7.38     | 9.20     |
| Upside (downside)         | -29.54%  | -12.13%  |

Figure 47

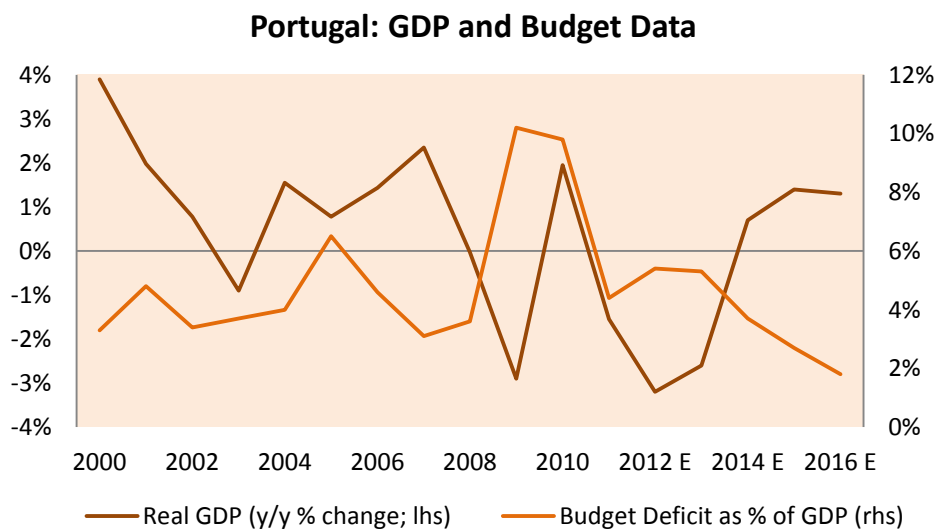
## 20 – Major Risks for the Valuation

The major risks for Oi's Valuation are i) the continuation of the economic slowdown in Brazil; ii) higher competitive intensity in the Brazilian telecom sector; iii) a deterioration of the access of credit by Oi, which could create risks to its Capex plan; iv) a devaluation of the EURBRL exchange rate which would lead to a decrease in the value of Oi's stake in Portugal Telecom.

## VI – Portugal Telecom

### 21 – Portuguese Economy

The Portuguese Government has run growing budget deficits, which led to the sovereign crisis that the country is now experiencing. In the 2013 Budget that the Portuguese Government unveiled recently, several austerity measures were announced to meet the 4.5% target deficit for 2013 required by Troika. The main issue is that, as the Government tries to reduce its Debt, it is on the other hand affecting the growth of an economy that was already anemic.



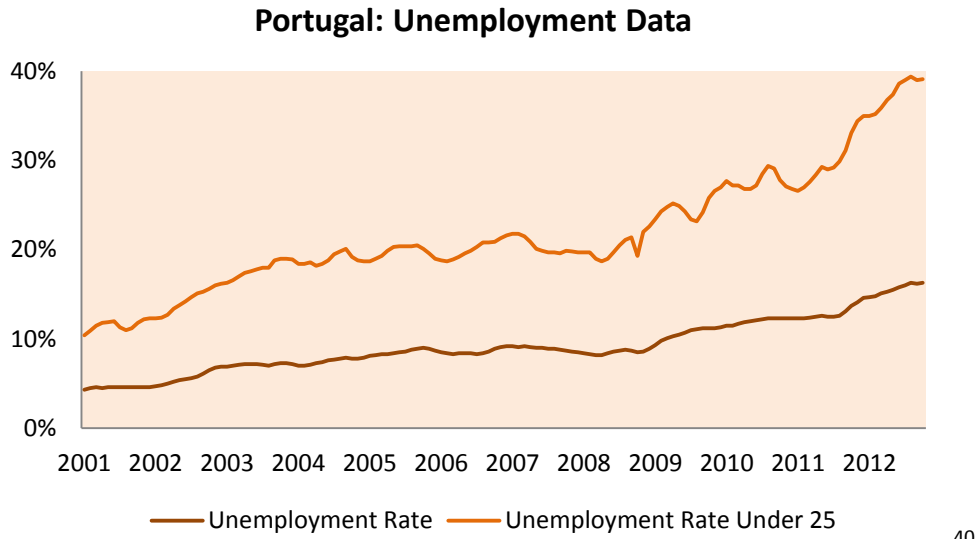
39

Figure 48

This creates several risks to an economy that it is already in recession and could fall into a downward spiral due to these measures. On the other hand, political and social unrest have

<sup>39</sup> Source: Bloomberg; Eurostat; Portugal Outlook – EuroZone Forecast, Winter Edition, December 2012, Ernst&Young

been increasing in the country, as the measures announced continue to have a clearly negative impact on domestic demand. Higher unemployment rates are expected in 2013.



40

Figure 49

This is particularly alarming with the youth. With an economy stuck in a recession, there are fewer opportunities, which could lead to additional social unrest. The Troika continues to push the Portuguese Government towards further labor market measures.

Credit conditions in Portugal should remain tight, reflecting the deleveraging currently going on in Portugal. The Portuguese Banking Sector has increased its capital ratios. BCP, BPI and probably Banif have received fresh capital from the State through CoCos.

The OMT announcement by the ECB reduced some tail risks in the Euro-Zone and allowed a reduction in the Portuguese country risk premium. As Mario Draghi affirmed in his September 6<sup>th</sup> 2012 speech, the countries that are currently under a bailout program will also be able to be considered for this program as soon as they regain markets access, something that is planned to happen by September 2013 for Portugal.

<sup>40</sup> Source: Eurostat

## 22 – The Company

Portugal Telecom is an integrated Telecom, who operates in such different countries as Portugal, Angola, Mozambique, Namibia, Macao, Brazil and Timor. In Portugal, its core business, the company provides Paid TV, Mobile and Fixed Services, and corporate solutions. Oi's participation is consolidated through the Proportional method. As Portugal Telecom consolidates 25.6% but only owns 23.3% of the company, the difference will go to minorities. In order to value Portugal Telecom therefore I had to divide the company's data into Oi and Portugal Telecom without Oi. In this way, I constructed the maps I need to create a valuation just using data from the company without Oi's holding.

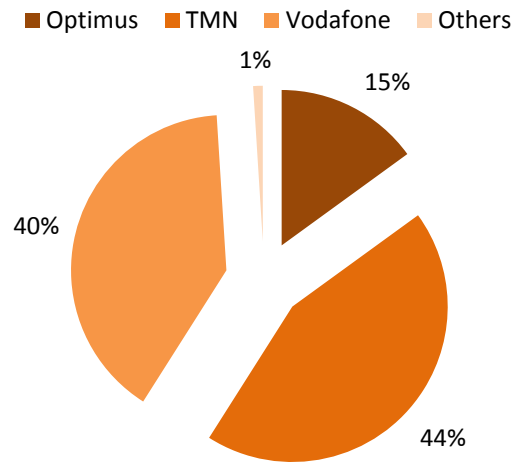
Portugal Telecom on Mobile services is the market leader in terms of number of customers in Portugal. Mobile Phones already have a large presence in Portugal. By the end of the 2011 these services had a penetration of 156.4%<sup>41</sup> in the country. Portugal Telecom has been investing on its LTE 4G infrastructure. By the end of 2012 the company intends to have 90% of the population covered with that technology. This provides the company an appropriate infrastructure for the strong increase of data needs that we should observe in Europe (as Morgan Stanley Analyst's Daniel Morris defends in his paper<sup>42</sup>).

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<sup>41</sup> Source: Anacom

<sup>42</sup> Source: Mobile Data Wave, Who Dares to Invest Wins, June 13<sup>th</sup> 2012, Morgan Stanley

### Q2 2012 Portugal Mobile Taryfs in Use Market Share



43

Figure 50

In the residential sector the opportunity is huge. Although the country has one of the highest multiple play penetration rates in Europe (2011 data<sup>44</sup>), it is still lagging behind countries such as Germany, France, Netherlands and Italy. The infrastructure is already available to meet expected higher data needs. Zon has a Docsis 3.0 cable line installed. Portugal Telecom has been installing FTTH in the country, and has currently 1.6 million houses equipped<sup>45</sup> with the technology. This enables both companies to provide leading edge services to clients with large data needs.

The company is also a leader in providing corporate solutions, although this market has been quite depressed due to the Portuguese economic crisis. Revenues in this segment have been adversely affected by big companies who suddenly started cutting their Opex, while the default rate in the Small and Medium Enterprises has increased.

Portugal Telecom is now trying to start converging data between fixed and mobile services, for B2B and B2C. The first one is already in deployment, as the company tries to innovate

<sup>43</sup> Source: Anacom

<sup>44</sup> Source: Anacom

<sup>45</sup> Source: Portugal Telecom Website, Technology & Innovation Conference PDF

through the offering of new services. The Data Center in Covilhã, will enable clients to store data. On the other hand, the fact that the majority of the country is already covered by LTE 4G and FTTH provides an opportunity for the company to start converging services. One example of this was the launching of the *Meo Go Service* to the B2C target.



Figure 51

## 23 – Revenues

I divided Portugal Telecom revenues into 3 segments: Portugal, Oi, and Others & Eliminations.

### 23.1 – Portugal

Portugal includes Residential, Personal, Enterprise and Wholesale revenues.

In the Residential Sector, revenues will be dependent on the ARPU and the number of clients. In this sector we have got the B2B offer that includes Paid-TV, Fixed Broadband and Fixed phone lines. Although the company started as a Fixed Phone company, the ARPU of this service is very low as there is already strong competition for providing this service, both from fixed and mobile operators. The main service in this segment for the ARPU contribution is Paid-TV, while the revenues coming from other services are marginal. After the Spin-off of PT Multimédia (renamed Zon) from Portugal Telecom in 2007, the company had to start a

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<sup>46</sup> Portugal Telecom Advertisement

new Paid-TV company and built infrastructures to support it. Today, the company is the second largest player in the country in this segment. It's number of clients have been growing exponentially and I expect this trend to continue, although probably at a slower pace as the market matures.

**Residential Operational Data**

|                            | 2010    | 2011    | 2012 E  | 2013 E  | 2014 E  | 2015 E  | 2016 E  | 2017 E  | 2018 E  | 2019 E  | 2020 E  |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Broadband Customers (000') | 3,257.0 | 3,557.0 | 3,748.3 | 3,943.0 | 4,111.9 | 4,221.6 | 4,317.9 | 4,392.0 | 4,421.9 | 4,443.9 | 4,466.1 |
| Pay-TV Customers (000')    | 775.0   | 972.0   | 1,087.4 | 1,163.6 | 1,221.7 | 1,258.4 | 1,303.1 | 1,339.5 | 1,354.3 | 1,365.1 | 1,376.0 |
| Unique Customers (000')    | 1,862.0 | 1,881.0 | 1,865.9 | 1,869.6 | 1,873.4 | 1,877.1 | 1,880.9 | 1,884.6 | 1,888.4 | 1,892.2 | 1,896.0 |
| RGUs                       | 1.75    | 1.89    | 2.01    | 2.11    | 2.19    | 2.25    | 2.30    | 2.33    | 2.34    | 2.35    | 2.36    |
| ARPU (€)                   | 29.20   | 30.80   | 31.77   | 32.72   | 33.70   | 34.38   | 35.43   | 36.24   | 36.46   | 36.57   | 36.68   |

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Figure 52

In the Mobile Sector, again it will be dependent on the number of clients and its ARPU. I expect the evolution of both to reflect the current recessionary environment in Portugal. Households should start to reduce their number of phones (many have more than one) and should start cutting on mobile expenses. Again, I will emphasize that I expect a transition from Pre-Paid Customers to Post-Paid Customers, as the smartphone penetration increases, and with it the need of data which will require different types of services from the company.

**Mobile Operational Data**

|                            | 2011   | 2012 E | 2013 E | 2014 E | 2015 E | 2016 E | 2017 E | 2018 E | 2019 E | 2020 E |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Pre-Paid Customers (000')  | 4868.0 | 4536.9 | 4083.2 | 3674.9 | 3233.9 | 2845.9 | 2504.4 | 2203.8 | 1763.1 | 1410.5 |
| Post-Paid Customers (000') | 1064.0 | 1205.2 | 1506.5 | 1928.3 | 2275.4 | 2616.7 | 3009.2 | 3310.1 | 3641.2 | 4005.3 |
| ARPU €                     | 8.70   | 7.94   | 7.86   | 7.86   | 7.93   | 8.17   | 8.36   | 8.41   | 8.44   | 8.46   |

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Figure 53

Both Enterprise and Wholesale segments should continue being affected by the Portuguese Economic Crisis. The last is also affected as some of its products (Yellow Pages and Telephone Booths) usage has been decreasing.

I expect that Portuguese revenues should decrease in the following years, due to the Personal, Enterprise and Wholesale segments.

<sup>47</sup> For Quarterly data, please consult Appendix 9

<sup>48</sup> For Quarterly data, please consult Appendix 10

| € (mn)               | 2011           | 2012 E         | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>Revenues</b>      | <b>2,892.0</b> | <b>2,687.2</b> | <b>2,586.1</b> | <b>2,562.4</b> | <b>2,528.4</b> | <b>2,542.8</b> | <b>2,580.8</b> | <b>2,590.9</b> | <b>2,585.7</b> | <b>2,592.8</b> |
| Residential          | 682.3          | 720.5          | 749.6          | 773.5          | 790.5          | 816.0          | 836.5          | 843.3          | 847.5          | 851.8          |
| Personal             | 768.4          | 665.1          | 614.0          | 615.2          | 611.0          | 622.4          | 639.8          | 643.2          | 633.7          | 636.5          |
| Enterprise           | 982.1          | 884.7          | 814.0          | 773.3          | 734.6          | 719.9          | 719.9          | 719.9          | 719.9          | 719.9          |
| Wholesale and Others | 459.2          | 416.9          | 408.6          | 400.4          | 392.4          | 384.5          | 384.5          | 384.5          | 384.5          | 384.5          |

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Figure 54

## 23.2 – Others and Eliminations

This segment is composed by several components. I would focus on Contax, MTC Namibia, Timor Telecom, CVT Cape Verde and CST Sao Tome and Principe. The equity stake held in those companies (besides Contax and Timor Telecom) is held through Africatel, in which Portugal Telecom holds 75% of the capital. Besides this we should consider intragroup sales that are here accounted. For all of them, I have assumed a constant growth in Revenues of 5% per year and 1% per quarter during 2012, besides intragroup and Contax Turnover which I maintained constant.

## 24 – Opex

### 24.1 – Portugal

There are four components of the operating costs in the country – Wages and Salaries, Direct Costs, Commercial costs and Other Operating Costs.

As Portugal is facing an economic crisis and companies are trying to reduce operating costs to maintain profits, companies are obviously focused on Wages and Salaries, as the Government tries to increase the flexibility of the local labor market. Due to this and considering that I only expect the economic environment to start getting brighter in the country by 2015, wages are expected to remain stable or even to slightly decrease

Direct Costs are also expected to fall as Anacom decreases MTRs<sup>50</sup>.

<sup>49</sup> For Quarterly data, please consult Appendix 11

I believe that Commercial Costs should start to increase, reflecting higher competition intensity in the Portuguese market.

Finally, Other Operating Costs should also fall.

| Operating Costs       |                |                |                |                |                |                |                |                |                |                |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| € (mn)                | 2011           | 2012 E         | 2013 E         | 2014 E         | 2015 E         | 2016 E         | 2017 E         | 2018 E         | 2019 E         | 2020 E         |
| Wages and Salaries    | 252.5          | 240.9          | 231.3          | 226.6          | 222.1          | 222.1          | 222.1          | 224.5          | 226.3          | 228.1          |
| % Change YoY          | -8.2%          | -4.6%          | -4.0%          | -2.0%          | -2.0%          | 0.0%           | 0.0%           | 1.1%           | 0.8%           | 0.8%           |
| Direct Costs          | 480.3          | 440.3          | 418.3          | 397.4          | 385.4          | 377.7          | 377.7          | 377.7          | 380.7          | 383.8          |
| % Change YoY          | -10.2%         | -8.3%          | -5.0%          | -5.0%          | -3.0%          | -2.0%          | 0.0%           | 0.0%           | 0.8%           | 0.8%           |
| Commercial Costs      | 318.3          | 293.8          | 293.8          | 291.2          | 295.2          | 305.7          | 314.3          | 317.7          | 320.3          | 322.8          |
| % Change YoY          | -7.7%          | -7.7%          | 0.0%           | -0.9%          | 1.4%           | 3.6%           | 2.8%           | 1.1%           | 0.8%           | 0.8%           |
| Other Operating Costs | 535.4          | 505.1          | 479.8          | 470.2          | 460.8          | 451.6          | 442.6          | 433.7          | 425.0          | 416.5          |
| % Change YoY          | -9.5%          | -5.7%          | -5.0%          | -2.0%          | -2.0%          | -2.0%          | -2.0%          | -2.0%          | -2.0%          | -2.0%          |
| <b>Total</b>          | <b>1,586.5</b> | <b>1,480.1</b> | <b>1,423.2</b> | <b>1,385.4</b> | <b>1,363.6</b> | <b>1,357.1</b> | <b>1,356.7</b> | <b>1,353.7</b> | <b>1,352.4</b> | <b>1,351.3</b> |

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Figure 55

## 24.2 – Others and Eliminations

Here, I simply assumed a constant EBITDA margin in the future of 17.29% on 2012 Q3 and Q4, and 17.15% from 2013 further.

## 25 – Depreciation and Capex

Both for Portugal and Others and Eliminations, I have constructed a Capex Map, where I assumed a fixed rate of depreciation for the future.

For Portugal, I assumed that Capex would fall as it ends its investment plan in infrastructure, after having completed its investments in FTTH and LTE 4G. As discussed previously with the company, it expects to spend €550mn in 2012 for Portugal, €450mn in 2013 and €400mn in 2014. From then on, I maintained it flat. Regarding the depreciation rate, I used 10% for intangible assets and 15% for intangible. There are three different types of Capex in Portugal – Maintaining Capex, Customer Related and Infrastructures. The last is the one that should diminish with the domestic Capex program ending.

<sup>50</sup> Source: Sonaecom 2Q 2012 Earnings Announcement

<sup>51</sup> For Quarterly data, please consult Appendix 12

For Others, I assumed flat the growth of Capex.

I had to assume a ratio from the total assets that belonged to Portugal and to Others (from the Balance Sheet, in order to know the impact of the depreciations on the model). And to have those, I simply subtracted the assets consolidated by PT of Oi to its total assets.

## 26 – P&L and Balance Sheet

We should bear in mind that I needed to construct a P&L and a Balance Sheet for Portugal Telecom's total operations<sup>52</sup>. As mentioned before, as 25.6% of Oi is consolidated into PT's financials I needed to remove them from my Balance Sheet and P&L get a more accurate evaluation. After that, I divided the P&L between Portugal and Others and Eliminations, and I constructed a Cash Map as I did with Oi. For that, I constructed a NWC Map<sup>53</sup> for these operations and allocated a part of the NWC needs to Portugal and the rest to others, 89% and 11% respectively (the same proportion for the EBITDA ratio generated by both on Q2 2012). I used the calendar that the company provides for the maturity of its Debt in Portugal. About the Debt raised in domestic operations, I assumed that the company's debt will rise as its cash needs increase in the future. As for Others & Eliminations, I assumed that the amount raised by it would be in the same proportion as that of the Portuguese Operations. Contributing positively to Others and Eliminations Financial Results are Equity holdings that the company consolidates by the Equity Method as we see with Unitel and CTM Macao. I assumed that it would grow at a 5% growth rate per year. In the last quarter of 2012, €454mn will have to be transferred to the State due to the Pension Fund. We should bear in mind that Portugal Telecom's stake in Oi is just 23.3%. As a result, the difference in earnings between its stake and what the company consolidates (25.6%) goes to Minorities. MTC Namibia, CVT Cape Verde, CST and Timor Telecom are totally consolidated. Due to that, the part that is consolidated by Portugal Telecom but is not owned by it should go to minorities, which I assumed growing at a constant rate of 5% per year (due to their large exposure to

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<sup>52</sup> Please consult Appendixes 13 to 27 to consult these Balance Sheets and P&Ls

<sup>53</sup> Please consult Appendixes 28 and 29 to consult Working Capital Maps

emerging markets, where growth has been large). All these calculations are important as they enable me to distinguish which financial costs come from Portugal, and which come from Others.

## 27 – Cost of Capital and FCF

For WACC I used the following formula for domestic operations:

$$R_e * E/V + R_a * (1 - T) * D/V$$

And for  $R_e$ :

$$R_f + B_L * \text{Market Premium} + \text{Country Risk Premium}$$

Where  $B_L$  I took it directly from Bloomberg.

On D/V ratio, there is no rule to on how to choose it but it should reflect the risk of the industry and the company and it should reflect its optimal capital allocation. I chose 45%.

Again, I have made forecasts through 2020.

For  $R_d$ , I have used 7.5%, as I expect the company's cost of debt to start increasing, approaching the Yield of its bonds that are traded in secondary markets.

For the Market Risk Premium, I used the MSCI Europe Index as  $R_m$  (used the average annual returns since 2007) and for  $R_f$  I used Germany 10 Year Government Bond Yields.

For the Country Risk Premium, I used one of the methods proposed by Damodaran(2012), i.e. the spread between Portuguese and German 10 Year Government Bond Yields.

Below, you can find the FCF Map for domestic operations of the company.

| Domestic Operations FCFF Details |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
|----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| €                                | 2012 E               | 2013 E               | 2014 E               | 2015 E               | 2016 E               | 2017 E               | 2018 E               | 2019 E               | 2020 E               | Terminal value       |
| EBITDA                           | 1,207,177,709.8      | 1,162,961,614.6      | 1,176,961,097.8      | 1,164,860,185.4      | 1,185,705,482.3      | 1,224,100,975.0      | 1,237,163,696.5      | 1,233,310,584.9      | 1,241,495,730.9      |                      |
| Capex                            | 550,000,000.0        | 450,000,000.0        | 400,000,000.0        | 400,000,000.0        | 400,000,000.0        | 400,000,000.0        | 400,000,000.0        | 400,000,000.0        | 400,000,000.0        |                      |
| Taxes                            | 70,681,830.0         | 26,386,910.9         | 25,945,853.9         | 39,510,462.6         | 46,518,030.4         | 91,815,323.6         | 94,472,091.9         | 93,838,056.0         | 110,817,125.5        |                      |
| NWC                              | 200,185,549.6        | 33,121,728.5         | 17,980,199.1         | 1,232,150.7          | 7,212,198.4          | 12,539,517.1         | 1,554,798.9          | 7,301,353.0          | 2,109,315.4          |                      |
| Extraordinary Payments           | 454,000,000.0        | -                    | -                    | -                    | -                    | -                    | -                    | -                    | -                    |                      |
| <b>FCFF</b>                      | <b>386,310,330.2</b> | <b>653,452,975.2</b> | <b>733,035,044.9</b> | <b>726,581,873.5</b> | <b>731,975,253.5</b> | <b>719,746,134.3</b> | <b>741,136,805.7</b> | <b>746,773,881.9</b> | <b>732,787,920.8</b> | <b>738,650,224.2</b> |

Figure 56

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## 28 – Valuation Results: Sum-of-the-Parts (SoP)

Below, you have the cost of capital for Portugal:

| Portugal's Cost of Capital |             |
|----------------------------|-------------|
| Levered Beta               | 1.0         |
| Risk-Free Rate             | 1.5%        |
| Equity Risk Premium        | 4.6%        |
| Cost of Equity             | 12.6%       |
| Cost of Debt               | 7.5%        |
| Tax Rate                   | 30.0%       |
| E/V                        | 45.0%       |
| <b>WACC</b>                | <b>9.3%</b> |

Figure 57

For valuing operations in Unitel, CTM Macao and Others I used an EV/EBITDA 2012 multiple of 5.6. For constructing the multiple I used the following companies: Safaricom, Telecom Egypt, Mobinil and Maroc Telecom.

<sup>54</sup> For Quarterly Data, please consult Appendix 30

| <b>Portugal Telecom's Valuation - SoP</b> |                |
|---|----------------|
| Portugal EV (€ mn)                        | 7,860.7        |
| Unitel EV (€ mn)                          | 919.6          |
| CTM Macao EV (€ mn)                       | 202.4          |
| Others and Eliminations EV (€ mn)         | 805.4          |
| <b>Total EV (€ mn)</b>                    | <b>9,788.1</b> |
| Net Debt (€ mn)                           | 4,787.3        |
| Equity (€ mn)                             | 5,000.8        |

Figure 58

## 29 – Major Risks for the Valuation

I believe that the major risks for the company are i) a deterioration of the Portuguese Economy, to which it has a strong exposure ; ii) a deterioration of the sovereign crisis in Portugal, which would negatively affect the credit conditions of the company; iii) political risks in Africa, where the company has a strong presence through Africatel.

## VII – Conclusion

In this paper I attempted to provide an insight into how to construct a model which enables its owner to provide an opinion about the company. It can be constantly updated, whenever there is new information. To achieve this, I used both Academic and Investment Banking practices. I believe that a thorough understanding of this subject is essential for the correct functioning of the Financial Markets, as it will provide a signal if the stock is fairly valued and how to establish appropriate management and directors compensation schemes.

Oi was valued through a DCF-Based Sum-of-the-Parts model. Unfortunately I believe that the company's fundamentals are weak and several risks can be identified. I arrived at YE12 price target of BRL5.47 for the Preferred Stock and BRL7.38 for the Ordinary Stock, with an Underweight recommendation for both classes of shares. I have compared my results with UBS's, which had a Neutral recommendation on the stock.

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### **31.1 – Investor Relations Websites**

#### **31.1.1 – America Movil Website**

- Investors Presentations

#### **31.1.2 – ENTEL Chile Website**

- Investors Presentations

#### **31.1.3 – Oi Website**

- 2010-2012 Oi's quarter and annual reports, and investors presentations

#### **31.1.4 – Portugal Telecom Website**

- 2010-2012 PT's quarter and annual reports, and investors presentations

#### **31.1.5 – Telefonica Brazil Website**

- Investors Presentations

#### **31.1.6 – TIM Participações Website**

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#### **31.1.7 – Sonaecom Website**

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### **31.2 – Macroeconomics Data**

- Brazil Central Bank Website
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### 31.3 – Industry Source

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### 31.5 – Others

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## IX – Glossary

- ARPU: Average Revenue Per User
- BOP: Bank of Portugal
- B2B: Business to Business
- B2C: Business to Consumer
- CAPEX: Capital Expenditures
- CPI: Consumer Price Index
- CoCo: Contingent Convertible Bond
- EBA: European Banking Authority
- EBIT: Earnings Before Interests and Taxes
- EBITDA: Earnings Before Interests, Taxes, Depreciations and Amortizations
- ECB: European Central Bank
- EV: Enterprise Value
- FTTH: Fiber-to-the-Home
- GDP: Gross Domestic Product
- IPO: Initial Public Offering
- LBO: Leveraged Buyout
- LTE 4G: Long Term Evolution
- MSCI Europe: Morgan Stanley Capital International Europe
- MTR: Mobile Termination Rate
- OMT: Outright Monetary Transactions
- OPEX: Operating Expenditures
- P&L: Profit and Loss
- RGU: Revenue Generating Unit
- ROE: Return on Equity
- ROIC: Return on Invested Capital
- WACC: Weighted Average Cost of Capital

## X – Appendixes

### Appendix 1 – Oi's Residential Operational Quarterly Data

#### Residential Operational Data

| Pro-Forma                              | Q1 2012  | Q2 2012  | Q3 2012  | Q4 2012  |
|--|----------|----------|----------|----------|
| RGU (000')                             | 17,851.0 | 18,037.0 | 18,187.2 | 18,496.4 |
| <i>% Change QoQ</i>                    | 0.24%    | 1.04%    | 0.83%    | 1.70%    |
| <i>% Change YoY</i>                    | -2.3%    | -7.0%    | 1.8%     | 3.9%     |
| RGUs added per Year (000')             | -415.0   | -1,363.0 | 322.2    | 700.4    |
| Average RGUs (000')                    | 17,823.5 | 17,944.0 | 18,112.1 | 18,341.8 |
| RGUs added per Year (Average)          |          | -889.0   | -520.4   | 511.3    |
| Number of Products per House (Average) | 1.39     | 1.42     | 1.43     | 1.45     |
| ARPU (Monthly BRL)                     | 63.10    | 64.50    | 65.47    | 66.12    |
| <i>% Change QoQ</i>                    | -2.6%    | 2.2%     | 1.5%     | 1.0%     |
| <i>% Change YoY</i>                    | -4.0%    | -1.5%    | 0.7%     | 2.0%     |
| Number of Houses of Oi (000')          | 12,831.5 | 12,744.2 | 12,680.3 | 12,743.7 |
| Telephones (000')                      | 12,841.0 | 12,744.0 | 12,680.3 | 12,743.7 |
| Telephones per House                   | 1        | 1        | 1        | 1        |
| Broadband Internet RGUs (000')         | 4,614.0  | 4,806.0  | 4,945.3  | 5,097.5  |
| <i>% of Houses with Broadband</i>      | 36.0%    | 37.7%    | 39.0%    | 40.0%    |
| Paid TV RGUs (000')                    | 396.0    | 487.0    | 561.6    | 655.2    |
| <i>Services per House</i>              | 1.39     | 1.42     | 1.43     | 1.45     |

### Appendix 2– Oi's Personal Mobility Operational Quarterly Data

#### Personal Mobility Operational Data

| Pro-Forma           | Q1 2012  | Q2 2012  | Q3 2012  | Q4 2012  |
|---------------------|----------|----------|----------|----------|
| RGU (000')          | 44,106.0 | 45,198.0 | 45,765.8 | 46,919.7 |
| <i>% Change QoQ</i> | 1.9%     | 2.5%     | 1.3%     | 2.5%     |
| <i>% Change YoY</i> | 12.2%    | 15.1%    | 12.2%    | 8.5%     |
| Pre Paid            | 38,536.0 | 39,407.0 | 39,801.1 | 40,597.1 |
| <i>% Total</i>      | 87.4%    | 87.2%    | 87.0%    | 86.5%    |
| <i>% Change QoQ</i> | 1.5%     | 2.3%     | 1.0%     | 2.0%     |
| <i>% Change YoY</i> | 11.3%    | 14.4%    | 11.6%    | 6.9%     |
| Postpaid            | 5,570.0  | 5,791.0  | 5,964.7  | 6,322.6  |
| <i>% Total</i>      | 12.6%    | 12.8%    | 13.0%    | 13.5%    |
| <i>% Change QoQ</i> | 5.4%     | 4.0%     | 3.0%     | 6.0%     |
| <i>% Change YoY</i> | 19.5%    | 20.1%    | 16.0%    | 19.6%    |
| ARPU Monthly        | 21.30    | 21.40    | 21.61    | 21.40    |

### Appendix 3 – Oi's Total Revenues Quarterly Data

| Oi's Total Revenues |                |                |                |                |
|---------------------|----------------|----------------|----------------|----------------|
| Pro-Forma (BRL Mn)  | Q1 2012        | Q2 2012        | Q3 2012        | Q4 2012        |
| Residential         | 2,429.0        | 2,466.0        | 2,490.4        | 2,527.9        |
| Personal Mobility   | 2,106.0        | 2,229.0        | 2,293.1        | 2,313.2        |
| Corporate           | 2,111.0        | 2,070.0        | 2,070.0        | 2,070.0        |
| Others              | 155.0          | 145.0          | 142.1          | 139.3          |
| <b>Total</b>        | <b>6,801.0</b> | <b>6,910.0</b> | <b>6,995.7</b> | <b>7,050.3</b> |

### Appendix 4 – Oi's Opex Quarterly Data

| Operational Expenses            |                |                |                |                |                |                |                |                |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Pro-Forma (BRL Mn)              | Q1 2011        | Q2 2011        | Q3 2011        | Q4 2011        | Q1 2012        | Q2 2012        | Q3 2012        | Q4 2012        |
| Interconnection                 | 1,185.0        | 1,146.0        | 1,163.0        | 1,157.0        | 1,163.0        | 1,066.0        | 1,066.0        | 1,066.0        |
| % Change QoQ                    | -8.3%          | -3.3%          | 1.5%           | -0.5%          | 0.5%           | -8.3%          | 0.0%           | 0.0%           |
| % Change YoY                    | -12.5%         | -5.1%          | -4.4%          | -10.4%         | -1.9%          | -7.0%          | -8.3%          | -7.9%          |
| Personnel                       | 423.0          | 465.0          | 459.0          | 537.0          | 482.0          | 515.0          | 530.5          | 572.9          |
| % Change QoQ                    | 0.0%           | 9.9%           | -1.3%          | 17.0%          | -10.2%         | 6.8%           | 3.0%           | 8.0%           |
| % Change YoY                    | 8.2%           | 14.8%          | 14.2%          | 27.0%          | 13.9%          | 10.8%          | 15.6%          | 6.7%           |
| Materials                       | 38.0           | 31.0           | 58.0           | 65.0           | 27.0           | 32.0           | 32.4           | 32.6           |
| % of Revenues                   | 0.5%           | 0.4%           | 0.8%           | 0.9%           | 0.4%           | 0.5%           | 0.5%           | 0.5%           |
| Handset costs/Other (COGS)      | 41.0           | 60.0           | 48.0           | 84.0           | 57.0           | 157.0          | 158.9          | 183.3          |
| % of Revenues                   | 0.6%           | 0.8%           | 0.7%           | 1.2%           | 0.8%           | 2.3%           | 2.3%           | 2.6%           |
| % Change QoQ                    | -6.8%          | 46.3%          | -20.0%         | 75.0%          | -32.1%         | 175.4%         | 1.2%           | 15.3%          |
| % Change YoY                    | -30.5%         | 71.4%          | 300.0%         | 90.9%          | 39.0%          | 161.7%         | 231.1%         | 118.2%         |
| Third Party Services            | 1,726.0        | 1,848.0        | 1,861.0        | 2,048.0        | 1,876.0        | 1,998.0        | 2,022.8        | 2,038.6        |
| % of Revenues                   | 24.9%          | 26.1%          | 26.8%          | 29.4%          | 27.6%          | 28.9%          | 28.9%          | 28.9%          |
| Marketing                       | 138.0          | 160.0          | 99.0           | 161.0          | 115.0          | 144.0          | 148.3          | 160.2          |
| % of Revenues                   | 2.0%           | 2.3%           | 1.4%           | 2.3%           | 1.7%           | 2.1%           | 2.1%           | 2.3%           |
| % Change QoQ                    |                | 15.9%          | -38.1%         | 62.6%          | -28.6%         | 25.2%          | 3.0%           | 8.0%           |
| % Change YoY                    | 11.3%          | 35.6%          | -25.0%         | -1.2%          | -16.7%         | -10.0%         | 49.8%          | -0.5%          |
| Rent and Insurance              | 396.0          | 392.0          | 426.0          | 443.0          | 455.0          | 444.0          | 452.9          | 461.9          |
| % Change QoQ                    | 2.1%           | -1.0%          | 8.7%           | 4.0%           | 2.7%           | -2.4%          | 2.0%           | 2.0%           |
| % Change YoY                    | 10.0%          | 0.8%           | 10.4%          | 14.2%          | 14.9%          | 13.3%          | 6.3%           | 4.3%           |
| Provision for Bad Debts         | 272.0          | 227.0          | 163.0          | 163.0          | 200.0          | 164.0          | 166.0          | 167.3          |
| % of Revenues                   | 3.9%           | 3.2%           | 2.3%           | 2.3%           | 2.9%           | 2.4%           | 2.4%           | 2.4%           |
| Other Operating Expenses        | 728.0          | 271.0          | 195.0          | 462.0          | 414.0          | 249.0          | 300.0          | 320.0          |
| % Change QoQ                    | 1.7%           | -62.8%         | -28.0%         | 136.9%         | -10.4%         | -39.9%         | 20.5%          | 6.7%           |
| % Change YoY                    | 29.3%          | -46.1%         | -41.3%         | -35.5%         | -43.1%         | -8.1%          | 53.8%          | -30.7%         |
| <b>Total Operating Expenses</b> | <b>4,947.0</b> | <b>4,600.0</b> | <b>4,472.0</b> | <b>5,120.0</b> | <b>4,789.0</b> | <b>4,769.0</b> | <b>4,877.8</b> | <b>5,002.9</b> |

## Appendix 5 – Oi’s Debt Map

| Debt Map                   |         |         |         |         |         |         |         |         |         |         |         |                  |                  |          |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|------------------|----------|
| (BRL Mn)                   | Q3 2012 | Q4 2012 | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    | In Front of 2020 | In Front of 2016 | Total    |
| Gross Debt Amortization    | 882.0   | 882.0   | 1,764.0 | 3,007.0 | 3,564.0 | 2,269.0 | 4,180.0 | 942.3   | 1,606.3 | 3,564.0 | 2,269.0 | 8,571.5          | 16,953.0         | 31,737.0 |
| % of the Total Maturing    |         |         | 5.6%    | 9.5%    | 11.2%   | 7.1%    | 13.2%   | 3.0%    | 5.1%    | 11.2%   | 7.1%    | 27.0%            | 53.4%            |          |
| Increase of Gross Debt     | 1,058.4 | 1,058.4 |         | 5,412.6 | 6,415.2 | 4,084.2 | 7,524.0 | 1,696.1 | 1,606.3 | 3,564.0 | 2,269.0 | 12,857.2         | 21,992.6         | 47,545.4 |
| Net Increase in Gross Debt | 176.4   | 176.4   |         | 2,405.6 | 2,851.2 | 1,815.2 | 3,344.0 | 753.8   | 0.0     | 0.0     | 0.0     | 4,285.7          | 5,039.6          | 15,808.4 |

## Appendix 6 – Oi’s NWC Quarterly Map

### Net Working Capital Map

| BRL (Mn)                      | Q1 2012         | Q2 2012         | Q3 2012         | Q4 2012         |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|
| <b>Total</b>                  | <b>12,212.0</b> | <b>12,019.0</b> | <b>11,727.1</b> | <b>11,789.0</b> |
| Accounts Receivable           | 5,643.0         | 5,940.0         | 5,674.3         | 5,718.6         |
| <i>Number of Days</i>         | 73.3            | 75.5            | 73.0            | 73.0            |
| Recoverable Taxes             | 2,542.0         | 2,001.0         | 1,978.0         | 1,993.5         |
| <i>Number of Days</i>         | 33.0            | 25.4            | 25.4            | 25.4            |
| Inventories                   | 241.0           | 280.0           | 276.8           | 278.9           |
| <i>Number of Days</i>         | 3.1             | 3.6             | 3.6             | 3.6             |
| Assets in Escrow              | 2,245.0         | 2,299.0         | 2,299.0         | 2,299.0         |
| Other Current Assets          | 1,541.0         | 1,499.0         | 1,499.0         | 1,499.0         |
| <b>Total</b>                  | <b>11,392.0</b> | <b>8,730.0</b>  | <b>8,881.5</b>  | <b>9,055.7</b>  |
| Suppliers                     | 4,770.0         | 3,958.0         | 4,048.3         | 4,152.1         |
| <i>Number of Days</i>         | 89.6            | 74.7            | 74.7            | 74.7            |
| Others                        | 6,622.0         | 4,772.0         | 4,833.2         | 4,903.6         |
| Payrolls and Related Accruals | 432.0           | 510.0           | 521.6           | 535.0           |
| <i>Number of Days</i>         | 8.1             | 9.6             | 9.6             | 9.6             |
| Provisions                    | 1,851.0         | 1,659.0         | 1,659.0         | 1,659.0         |
| Taxes                         | 2,614.0         | 2,173.0         | 2,222.6         | 2,279.6         |
| <i>Number of Days</i>         | 49.1            | 41.0            | 41.0            | 41.0            |
| Other Accounts                | 1,725.0         | 2,089.0         | 2,089.0         | 2,089.0         |

## Appendix 7 – Oi's Quarterly P&L

| Oi's P&L                                       |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| BRL (Mn)                                       | 1 <sup>o</sup> T2010 | 2 <sup>o</sup> T2010 | 3 <sup>o</sup> T2010 | 4 <sup>o</sup> T2010 | 1 <sup>o</sup> T2011 | 2 <sup>o</sup> T2011 | 3 <sup>o</sup> T2011 | 4 <sup>o</sup> T2011 | 1 <sup>o</sup> T2012 | 2 <sup>o</sup> T2012 | 3 <sup>o</sup> T2012 | 4 <sup>o</sup> T2012 |
| Net Operating Revenues                         | 7,463.0              | 7,373.0              | 7,345.0              | 7,299.0              | 6,933.0              | 7,077.0              | 6,941.0              | 6,957.0              | 6,801.0              | 6,910.0              | 6,995.7              | 7,050.3              |
| Operating Expenses                             | 4,927.0              | 4,684.0              | 4,551.0              | 5,022.0              | 4,947.0              | 4,600.0              | 4,472.0              | 5,120.0              | 4,789.0              | 4,769.0              | 4,877.8              | 5,002.9              |
| <b>EBITDA Pro-Forma</b>                        | <b>2,536.0</b>       | <b>2,689.0</b>       | <b>2,794.0</b>       | <b>2,277.0</b>       | <b>1,986.0</b>       | <b>2,477.0</b>       | <b>2,469.0</b>       | <b>1,837.0</b>       | <b>2,012.0</b>       | <b>2,141.0</b>       | <b>2,117.9</b>       | <b>2,047.5</b>       |
| <b>EBITDA Consolidated</b>                     | <b>849.2</b>         | <b>800.8</b>         | <b>1,037.1</b>       | <b>829.1</b>         | <b>664.1</b>         | <b>799.4</b>         | <b>624.0</b>         | <b>524.0</b>         | <b>1,149.5</b>       | <b>2,141.0</b>       | <b>2,117.9</b>       | <b>2,047.5</b>       |
| Depreciation and Amortization                  | 269.3                | 260.3                | 260.6                | 266.7                | 259.5                | 254.5                | 260.0                | 270.1                | 586.0                | 1,284.0              | 1,169.1              | 1,183.0              |
| <b>EBIT</b>                                    | <b>579.9</b>         | <b>540.5</b>         | <b>776.5</b>         | <b>562.4</b>         | <b>404.6</b>         | <b>544.9</b>         | <b>364.0</b>         | <b>253.9</b>         | <b>563.5</b>         | <b>857.0</b>         | <b>948.8</b>         | <b>864.5</b>         |
| Net Financial Income                           | -59.0                | -47.0                | 20.0                 | 8.0                  | -281.0               | 40.0                 | 206.0                | -36.0                | -237.0               | -691.0               | -486.5               | -499.8               |
| <i>Average Cost of Debt</i>                    |                      |                      |                      |                      |                      |                      |                      |                      | -23.2%               | -4.0%                | 2.0%                 | 2.0%                 |
| <b>EBT</b>                                     | <b>520.9</b>         | <b>493.5</b>         | <b>796.5</b>         | <b>570.4</b>         | <b>123.6</b>         | <b>584.9</b>         | <b>570.0</b>         | <b>217.9</b>         | <b>326.5</b>         | <b>166.0</b>         | <b>462.3</b>         | <b>364.7</b>         |
| Taxes  | 139.0                | 149.6                | 253.9                | -134.1               | 30.7                 | 210.4                | 171.1                | 77.5                 | -19.2                | 100.7                | 138.7                | 109.4                |
| % Taxes  | 26.7%                | 30.3%                | 31.9%                | -23.5%               | 24.8%                | 36.0%                | 30.0%                | 35.6%                | -5.9%                | 60.7%                | 30.0%                | 30.0%                |
| Net Income before non-controlling shareholders | 381.9                | 343.9                | 542.6                | 704.5                | 92.9                 | 374.5                | 398.9                | 140.4                | 345.7                | 65.3                 | 323.6                | 255.3                |
| Non-Controlling Shareholders                   | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.6                  | 1.9                  | 1.9                  | 1.9                  |
| <b>Net Income</b>                              | <b>381.9</b>         | <b>343.9</b>         | <b>542.6</b>         | <b>704.5</b>         | <b>92.9</b>          | <b>374.5</b>         | <b>398.9</b>         | <b>140.4</b>         | <b>345.1</b>         | <b>63.4</b>          | <b>321.7</b>         | <b>253.4</b>         |

## Appendix 8 – Oi's Domestic Operations Quarterly FCFF

### FCFF Details

| BRL (Mn)                              | Q1 2012        | Q2 2012         | Q3 2012      | Q4 2012      |
|---------------------------------------|----------------|-----------------|--------------|--------------|
| EBITDA                                | 2,012.0        | 2,141.0         | 2,117.9      | 2,047.5      |
| Capex                                 | 1,091.0        | 1,360.0         | 1,633.3      | 2,018.1      |
| Taxes                                 | -19.2          | 100.7           | 138.7        | 109.4        |
| Change in working capital/other flows | -312.0         | 2,995.0         | -482.3       | -203.5       |
| <b>FCFF</b>                           | <b>1,252.2</b> | <b>-2,314.7</b> | <b>828.2</b> | <b>123.5</b> |

## Appendix 9 – PT's Residential Operational Quarterly Data

### Residential Operational Data

|                            | Q1 2011 | Q2 2011 | Q3 2011 | Q4 2011 | Q1 2012 | Q2 2012 | Q3 2012 | Q4 2012 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Broadband Customers (000') | 3,328.0 | 3,379.0 | 3,460.0 | 3,557.0 | 3,646.0 | 3,714.0 | 3,784.7 | 3,848.6 |
| Pay-TV Customers (000')    | 818.0   | 858.0   | 909.0   | 972.0   | 1,035.0 | 1,076.0 | 1,108.3 | 1,130.4 |
| Unique Customers (000')    | 1,862.0 | 1,870.0 | 1,875.0 | 1,881.0 | 1,869.0 | 1,863.0 | 1,864.9 | 1,866.7 |
| RGUs                       | 1.79    | 1.81    | 1.85    | 1.89    | 1.95    | 1.99    | 2.03    | 2.06    |
| ARPU (€)                   | 30.50   | 30.98   | 30.90   | 30.90   | 31.50   | 31.70   | 32.02   | 31.86   |

## Appendix 10 – PT's Mobile Operational Quarterly Data

### Mobile Operational Data

|                            | Q1 2011 | Q2 2011 | Q3 2011 | Q4 2011 | Q1 2012 | Q2 2012 | Q3 2012 | Q4 2012 |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Pre-Paid Customers (000')  | 4912.0  | 4820.0  | 4819.0  | 4869.0  | 4812.0  | 4724.0  | 4629.5  | 4536.9  |
| Post-Paid Customers (000') | 1027.0  | 1041.0  | 1054.0  | 1064.0  | 1078.0  | 1073.0  | 1115.9  | 1205.2  |
| ARPU €                     | 8.60    | 8.40    | 9.20    | 8.60    | 8.00    | 8.00    | 7.92    | 7.84    |

## Appendix 11 – PT's Domestic Revenues Quarterly Data

| € (mn)               | Q1 2011      | Q2 2011      | Q3 2011      | Q4 2011      | Q1 2012      | Q2 2012      | Q3 2012      | Q4 2012      |
|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Revenues</b>      | <b>717.3</b> | <b>725.2</b> | <b>731.0</b> | <b>718.5</b> | <b>680.4</b> | <b>678.0</b> | <b>671.0</b> | <b>657.8</b> |
| Residential          | 169.1        | 170.4        | 171.0        | 171.8        | 176.9        | 178.5        | 182.9        | 182.2        |
| Personal             | 187.7        | 187.1        | 199.9        | 193.7        | 169.3        | 170.3        | 165.7        | 159.8        |
| Enterprise           | 250.5        | 248.4        | 238.0        | 245.2        | 226.0        | 226.3        | 219.5        | 212.9        |
| Wholesale and Others | 110.0        | 119.3        | 122.1        | 107.8        | 108.2        | 102.9        | 102.9        | 102.9        |

## Appendix 12 – PT's Domestic Opex Quarterly Data

### Operating Costs

| € (mn)                | Q1 2011      | Q2 2011      | Q3 2011      | Q4 2011      | Q1 2012      | Q2 2012      | Q3 2012      | Q4 2012      |
|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Wages and Salaries    | 62.8         | 62.9         | 63.9         | 62.9         | 60.3         | 60.4         | 59.8         | 60.4         |
| % Change QoQ          | -7.9%        | 0.2%         | 1.6%         | -1.6%        | -4.1%        | 0.2%         | -1.0%        | 1.0%         |
| % Change YoY          | 0.0%         | 0.0%         | -7.8%        | -7.8%        | -4.0%        | -4.0%        | -6.4%        | -4.0%        |
| Direct Costs          | 121.6        | 117.0        | 120.0        | 121.7        | 115.6        | 110.8        | 107.5        | 106.4        |
| % Change QoQ          | -7.2%        | -3.8%        | 2.6%         | 1.4%         | -5.0%        | -4.2%        | -3.0%        | -1.0%        |
| % Change YoY          | 0.0%         | 0.0%         | -10.8%       | -7.1%        | -4.9%        | -5.3%        | -10.4%       | -12.6%       |
| Commercial Costs      | 65.0         | 78.6         | 80.5         | 94.2         | 71.7         | 70.7         | 72.1         | 79.3         |
| % Change QoQ          | -40.7%       | 20.9%        | 2.4%         | 17.0%        | -23.9%       | -1.4%        | 2.0%         | 10.0%        |
| % Change YoY          | 0.0%         | 0.0%         | -6.6%        | -14.1%       | 10.3%        | -10.1%       | -10.4%       | -15.8%       |
| Other Operating Costs | 137.2        | 134.6        | 136.7        | 126.9        | 125.1        | 128.8        | 128.8        | 122.4        |
| % Change QoQ          | 7.2%         | -1.9%        | 1.6%         | -7.2%        | -1.4%        | 3.0%         | 0.0%         | -5.0%        |
| % Change YoY          | 0.0%         | 0.0%         | -10.9%       | -0.9%        | -8.8%        | -4.3%        | -5.8%        | -3.6%        |
| <b>Total</b>          | <b>386.6</b> | <b>393.1</b> | <b>401.1</b> | <b>405.7</b> | <b>372.7</b> | <b>370.7</b> | <b>368.2</b> | <b>368.5</b> |

## Appendix 13 – PT's Domestic P&amp;L

| P&L Portugal                    |                        |                        |                      |                      |                      |                      |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|---------------------------------|------------------------|------------------------|----------------------|----------------------|----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| €                               | 2010                   | 2011                   | Q1 2012              | Q2 2012              | Q3 2012              | Q4 2012              | 2012 E                 | 2013 E                 | 2014 E                 | 2015 E                 | 2016 E                 | 2017 E                 | 2018 E                 | 2019 E                 | 2020 E                 |
| Total Revenues                  | 3,124,500,000.0        | 2,892,000,000.0        | 680,400,000.0        | 678,000,000.0        | 671,018,530.8        | 657,825,779.0        | 2,687,244,309.8        | 2,586,123,754.2        | 2,562,375,670.6        | 2,528,436,343.6        | 2,542,838,044.5        | 2,580,762,006.1        | 2,590,973,747.1        | 2,585,706,505.2        | 2,592,809,884.1        |
| Operating Costs                 | 1,746,900,000.0        | 1,596,500,000.0        | 372,700,000.0        | 370,700,000.0        | 368,186,000.0        | 368,480,000.0        | 1,480,566,000.0        | 1,423,161,199.6        | 1,395,454,572.8        | 1,363,576,158.2        | 1,357,132,562.2        | 1,356,651,051.1        | 1,353,710,050.6        | 1,352,895,800.3        | 1,351,314,155.1        |
| <b>EBITDA</b>                   | <b>1,377,600,000.0</b> | <b>1,305,500,000.0</b> | <b>307,700,000.0</b> | <b>307,300,000.0</b> | <b>302,832,530.8</b> | <b>289,345,779.0</b> | <b>1,207,177,709.8</b> | <b>1,162,961,614.6</b> | <b>1,176,961,097.8</b> | <b>1,164,860,185.4</b> | <b>1,185,705,482.3</b> | <b>1,224,100,975.0</b> | <b>1,237,163,696.5</b> | <b>1,233,310,544.9</b> | <b>1,241,495,730.9</b> |
| <i>EBITDA Margin</i>            | 44.1%                  | 45.2%                  | 45.2%                | 45.3%                | 45.1%                | 44.0%                | 44.9%                  | 45.0%                  | 45.9%                  | 46.1%                  | 46.6%                  | 47.4%                  | 47.8%                  | 47.7%                  | 47.9%                  |
| Depreciation and Amortization   | 681,600,000.0          | 703,200,000.0          | 166,900,000.0        | 168,400,000.0        | 189,505,702.7        | 186,479,751.6        | 711,285,454.4          | 781,730,918.8          | 736,537,252.3          | 692,867,580.3          | 655,273,947.9          | 622,895,504.1          | 594,996,864.0          | 570,948,039.6          | 550,209,428.1          |
| Post Retirement Benefits (PRBs) | 38,100,000.0           | 53,900,000.0           | 13,300,000.0         | 12,900,000.0         | 12,375,000.0         | 16,434,000.0         | 55,009,000.0           | 53,908,820.0           | 52,830,643.6           | 51,774,030.7           | 50,738,550.1           | 49,723,779.1           | 48,729,303.5           | 47,754,171.5           | 46,799,623.1           |
| <i>% Change YoY</i>             |                        | 41.5%                  | 10.8%                | 0.8%                 | -1.0%                | -1.0%                | 2.1%                   | -2.0%                  | -2.0%                  | -2.0%                  | -2.0%                  | -2.0%                  | -2.0%                  | -2.0%                  | -2.0%                  |
| <b>EBIT</b>                     | <b>657,900,000.0</b>   | <b>548,400,000.0</b>   | <b>127,500,000.0</b> | <b>126,000,000.0</b> | <b>100,951,828.0</b> | <b>86,431,427.4</b>  | <b>440,883,255.4</b>   | <b>337,311,871.8</b>   | <b>387,593,201.9</b>   | <b>420,218,174.4</b>   | <b>479,692,884.3</b>   | <b>551,481,691.8</b>   | <b>593,437,528.9</b>   | <b>614,607,827.9</b>   | <b>644,486,679.7</b>   |
| Financial Expenses (Income)     |                        |                        | 64,776,708.8         | 18,382,888.1         | 62,317,825.8         | 59,799,732.7         | 205,277,155.5          | 239,365,506.0          | 301,107,022.4          | 288,516,632.5          | 324,632,882.9          | 345,430,613.1          | 278,530,555.9          | 301,814,307.8          | 275,096,261.3          |
| <i>Cost of Debt</i>             |                        |                        |                      |                      | 2%                   | 1%                   | 5.0%                   | 5.0%                   | 7.5%                   | 7.5%                   | 7.5%                   | 7.5%                   | 7.5%                   | 7.5%                   | 7.5%                   |
| <b>EBT</b>                      |                        |                        | 62,723,291.2         | 107,617,111.9        | 38,634,002.2         | 26,631,694.7         | 235,606,099.9          | 87,956,369.8           | 86,486,179.5           | 131,701,541.8          | 155,060,101.4          | 306,051,078.8          | 314,906,973.0          | 312,793,520.1          | 369,390,418.4          |
| <b>Taxes</b>                    |                        |                        | 18,816,987.4         | 32,285,133.6         | 11,590,200.7         | 7,989,508.4          | 70,681,830.0           | 26,388,910.9           | 25,945,853.9           | 39,510,462.6           | 46,518,030.4           | 91,815,323.6           | 94,472,091.9           | 93,838,056.0           | 110,817,125.5          |
| <i>Tax Rate</i>                 |                        |                        | 30.0%                | 30.0%                | 30.0%                | 30.0%                | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  | 30.0%                  |
| <b>Net Income</b>               |                        |                        | <b>43,906,303.8</b>  | <b>75,331,978.3</b>  | <b>27,043,801.5</b>  | <b>18,642,186.3</b>  | <b>164,924,269.9</b>   | <b>61,568,458.9</b>    | <b>60,540,325.7</b>    | <b>92,191,079.3</b>    | <b>108,542,071.0</b>   | <b>214,235,755.1</b>   | <b>220,434,881.1</b>   | <b>218,955,464.1</b>   | <b>258,573,292.9</b>   |

## Appendix 14 – PT's Domestic Quarterly P&amp;L

| P&L Portugal                    |                      |                      |                      |                      |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|
| €                               | Q1 2012              | Q2 2012              | Q3 2012              | Q4 2012              |
| Total Revenues                  | 680,400,000.0        | 678,000,000.0        | 671,018,530.8        | 657,825,779.0        |
| Operating Costs                 | 372,700,000.0        | 370,700,000.0        | 368,186,000.0        | 368,480,600.0        |
| <b>EBITDA</b>                   | <b>307,700,000.0</b> | <b>307,300,000.0</b> | <b>302,832,530.8</b> | <b>289,345,179.0</b> |
| <i>EBITDA Margin</i>            | 45.2%                | 45.3%                | 45.1%                | 44.0%                |
| Depreciation and Amortization   | 166,900,000.0        | 168,400,000.0        | 189,505,702.7        | 186,479,751.6        |
| Post Retirement Benefits (PRBs) | 13,300,000.0         | 12,900,000.0         | 12,375,000.0         | 16,434,000.0         |
| <i>% Change YoY</i>             | 10.8%                | 0.8%                 | -1.0%                | -1.0%                |
| <b>EBIT</b>                     | <b>127,500,000.0</b> | <b>126,000,000.0</b> | <b>100,951,828.0</b> | <b>86,431,427.4</b>  |
| Financial Expenses (Income)     | 64,776,708.8         | 18,382,888.1         | 62,317,825.8         | 59,799,732.7         |
| <i>Cost of Debt</i>             |                      |                      | 1%                   | 1%                   |
| <b>EBT</b>                      | 62,723,291.2         | 107,617,111.9        | 38,634,002.2         | 26,631,694.7         |
| <b>Taxes</b>                    | 18,816,987.4         | 32,285,133.6         | 11,590,200.7         | 7,989,508.4          |
| <i>Tax Rate</i>                 | 30.0%                | 30.0%                | 30.0%                | 30.0%                |
| <b>Net Income</b>               | <b>43,906,303.8</b>  | <b>75,331,978.3</b>  | <b>27,043,801.5</b>  | <b>18,642,186.3</b>  |

## Appendix 15 – PT's Others &amp; Eliminations P&amp;L

| P&L Others & Eliminations                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| €  | 2012 F                | 2013 F                | 2014 F                | 2015 F                | 2016 F                | 2017 F                | 2018 F                | 2019 F                | 2020 F                |  |
| Operational Revenues                           | 845,614,400.00        | 862,005,120.00        | 879,215,376.00        | 897,286,144.80        | 916,260,452.04        | 936,183,474.64        | 957,102,648.37        | 979,067,780.79        | 1,002,131,169.83      |  |
| % Change YoY                                   |                       | 1.94%                 | 2.00%                 | 2.06%                 | 2.11%                 | 2.17%                 | 2.23%                 | 2.29%                 | 2.36%                 |  |
| MTC Namibia                                    | 177,324,400.00        | 186,190,620.00        | 195,500,151.00        | 205,275,158.55        | 215,538,916.48        | 226,315,862.30        | 237,631,655.42        | 249,513,238.19        | 261,988,900.10        |  |
| % Change YoY                                   |                       | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 |  |
| CVT Cape Verde                                 | 84,050,000.00         | 88,252,500.00         | 92,665,125.00         | 97,298,381.25         | 102,163,300.31        | 107,271,465.33        | 112,635,038.59        | 118,266,790.52        | 124,180,130.05        |  |
| % Change YoY                                   |                       | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 |  |
| CST  | 12,457,500.00         | 13,080,375.00         | 13,734,393.75         | 14,421,113.44         | 15,142,113.44         | 15,899,277.56         | 16,694,241.44         | 17,528,953.52         | 18,405,401.19         |  |
| % Change YoY                                   |                       | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 |  |
| Timor Telecom                                  | 53,982,500.00         | 56,681,625.00         | 59,515,706.25         | 62,491,491.56         | 65,616,066.14         | 68,896,869.45         | 72,341,712.92         | 75,958,798.57         | 79,756,738.49         |  |
| % Change YoY                                   |                       | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 | 5.00%                 |  |
| Intragroup and Contax                          | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        | 517,800,000.00        |  |
| Operational Costs                              | 700,629,311.21        | 714,209,755.05        | 728,469,221.07        | 743,441,660.40        | 759,162,721.69        | 775,669,836.05        | 793,002,306.12        | 811,201,399.70        | 830,310,447.96        |  |
| <b>EBITDA</b>                                  | <b>144,985,088.79</b> | <b>147,795,364.95</b> | <b>150,746,154.93</b> | <b>153,844,484.40</b> | <b>157,097,730.35</b> | <b>160,513,638.60</b> | <b>164,100,342.25</b> | <b>167,866,381.09</b> | <b>171,820,721.87</b> |  |
| <i>EBITDA Margin</i>                           | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         | <i>17.15%</i>         |  |
| Depreciation and Amortization                  | 210,510,335.00        | 120,030,539.75        | 121,696,991.37        | 123,290,190.63        | 124,811,324.51        | 126,261,893.74        | 127,643,647.80        | 128,958,529.31        | 130,208,626.71        |  |
| Post retirement Benefits                       | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          | 4,800,000.00          |  |
| <b>Operational Results</b>                     | <b>70,325,246.22</b>  | <b>22,964,825.20</b>  | <b>24,249,163.56</b>  | <b>25,754,293.77</b>  | <b>27,486,405.84</b>  | <b>29,451,744.85</b>  | <b>31,656,694.45</b>  | <b>34,107,851.78</b>  | <b>36,812,095.16</b>  |  |
| <b>Other Costs (Revenues)</b>                  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  | <b>65,000,000.00</b>  |  |
| Curtailment Costs, net                         | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            | 900,000.00            |  |
| Net losses (gains) on disposal of fixed assets | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          | 4,500,000.00          |  |
| Net other costs (gains)                        | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         | 70,400,000.00         |  |
| <b>EBIT</b>                                    | <b>5,325,246.22</b>   | <b>87,964,825.20</b>  | <b>89,249,163.56</b>  | <b>90,754,293.77</b>  | <b>92,486,405.84</b>  | <b>94,451,744.85</b>  | <b>96,656,694.45</b>  | <b>99,107,851.78</b>  | <b>101,812,095.16</b> |  |
| <b>Financial Expenses (Income)</b>             | <b>73,672,479.00</b>  | <b>165,881,439.45</b> | <b>153,596,613.59</b> | <b>163,435,992.73</b> | <b>187,153,432.28</b> | <b>192,898,298.65</b> | <b>207,704,245.62</b> | <b>229,538,619.89</b> | <b>246,379,391.32</b> |  |
| <i>Rate</i>                                    |                       | <i>5.00%</i>          | <i>7.50%</i>          | <i>7.50%</i>          | <i>7.50%</i>          | <i>7.50%</i>          | <i>7.50%</i>          | <i>7.50%</i>          | <i>7.50%</i>          |  |
| <b>EBT</b>                                     | <b>68,347,232.78</b>  | <b>253,846,264.65</b> | <b>242,845,777.15</b> | <b>254,190,286.50</b> | <b>279,639,838.11</b> | <b>287,350,043.50</b> | <b>304,360,940.07</b> | <b>328,646,471.67</b> | <b>348,191,486.48</b> |  |
| Taxes  | 74,122,423.80         | 76,153,879.40         | 72,853,733.14         | 76,257,085.95         | 83,891,951.43         | 86,205,013.05         | 91,308,282.02         | 98,593,941.50         | 104,457,445.94        |  |
| <b>Net Income</b>                              | <b>5,775,191.02</b>   | <b>177,692,385.26</b> | <b>169,992,044.00</b> | <b>177,933,200.55</b> | <b>195,747,886.68</b> | <b>201,145,030.45</b> | <b>213,052,658.05</b> | <b>230,052,530.17</b> | <b>243,734,040.54</b> |  |

## Appendix 16 – PT's Others &amp; Eliminations Quarterly P&amp;L

| P&L Others & Eliminations                      |                       |                      |                      |                      |  |
|--|-----------------------|----------------------|----------------------|----------------------|--|
| €  | Q1 2012               | Q2 2012              | Q3 2012              | Q4 2012              |  |
| Operational Revenues                           | 246,900,000.00        | 197,300,000.00       | 199,540,000.00       | 201,874,400.00       |  |
| MTC Namibia                                    | 44,000,000.00         | 44,000,000.00        | 44,440,000.00        | 44,884,400.00        |  |
| CVT Cape Verde                                 | 21,000,000.00         | 20,000,000.00        | 21,000,000.00        | 22,050,000.00        |  |
| CST  | 3,000,000.00          | 3,000,000.00         | 3,150,000.00         | 3,307,500.00         |  |
| Timor Telecom                                  | 13,000,000.00         | 13,000,000.00        | 13,650,000.00        | 14,332,500.00        |  |
| Intragroup and Contax                          | 165,900,000.00        | 117,300,000.00       | 117,300,000.00       | 117,300,000.00       |  |
| Operational Costs                              | 210,100,000.00        | 158,500,000.00       | 165,049,207.90       | 166,980,103.31       |  |
| <b>EBITDA</b>                                  | <b>36,800,000.00</b>  | <b>38,800,000.00</b> | <b>34,490,792.10</b> | <b>34,894,296.69</b> |  |
| <i>EBITDA Margin</i>                           | <i>14.90%</i>         | <i>19.67%</i>        | <i>17.29%</i>        | <i>17.29%</i>        |  |
| Depreciation and Amortization                  | 120,269,841.27        | 37,861,904.76        | 26,091,094.79        | 26,287,494.18        |  |
| Post retirement Benefits                       | 1,500,000.00          | 1,100,000.00         | 1,100,000.00         | 1,100,000.00         |  |
| <b>Operational Results</b>                     | <b>84,969,841.27</b>  | <b>161,904.76</b>    | <b>7,299,697.31</b>  | <b>7,506,802.51</b>  |  |
| <b>Other Costs (Revenues)</b>                  | <b>11,200,000.00</b>  | <b>25,400,000.00</b> | <b>25,400,000.00</b> | <b>25,400,000.00</b> |  |
| Curtailment Costs, net                         | 900,000.00            | -                    | -                    | -                    |  |
| Net losses (gains) on disposal of fixed assets | 900,000.00            | 1,200,000.00         | 1,200,000.00         | 1,200,000.00         |  |
| Net other costs (gains)                        | 9,400,000.00          | 26,600,000.00        | 26,600,000.00        | 26,600,000.00        |  |
| <b>EBIT</b>                                    | <b>96,169,841.27</b>  | <b>25,238,095.24</b> | <b>32,699,697.31</b> | <b>32,906,802.51</b> |  |
| <b>Financial Expenses (Income)</b>             | <b>7,747,100.70</b>   | <b>2,320,286.47</b>  | <b>41,927,249.70</b> | <b>41,812,616.46</b> |  |
| <i>Rate</i>                                    |                       |                      | <i>1.25%</i>         | <i>1.25%</i>         |  |
| <b>EBT</b>                                     | <b>103,916,941.97</b> | <b>22,917,808.77</b> | <b>74,626,947.01</b> | <b>74,719,418.97</b> |  |
| Taxes  | 4,733,488.84          | 24,585,025.17        | 22,388,084.10        | 22,415,825.69        |  |
| <b>Net Income</b>                              | <b>108,650,430.81</b> | <b>1,667,216.40</b>  | <b>52,238,862.91</b> | <b>52,303,593.28</b> |  |

## Appendix 17 – PT's Total-Oi P&amp;L

| Portugal and Others & Eliminations P&L         |                 |                 |                 |                 |                 |                 |                 |                 |                 |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| € (mn)   | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
| EBITDA Portugal                                | 1,207.18        | 1,162.96        | 1,176.96        | 1,164.86        | 1,185.71        | 1,224.10        | 1,237.16        | 1,233.31        | 1,241.50        |
| EBITDA Others and Eliminations                 | 144.99          | 147.80          | 150.75          | 153.84          | 157.10          | 160.51          | 164.10          | 167.87          | 171.82          |
| <b>EBITDA</b>                                  | <b>1,352.16</b> | <b>1,310.76</b> | <b>1,327.71</b> | <b>1,318.70</b> | <b>1,342.80</b> | <b>1,384.61</b> | <b>1,401.26</b> | <b>1,401.18</b> | <b>1,413.32</b> |
| Post retirement Benefits                       | 59.81           | 58.71           | 57.63           | 56.57           | 55.54           | 54.52           | 53.53           | 52.55           | 51.60           |
| Depreciation and Amortization                  | 921.80          | 901.76          | 858.23          | 816.16          | 780.09          | 749.16          | 722.64          | 699.91          | 680.42          |
| <b>Operational Results</b>                     | <b>370.56</b>   | <b>350.29</b>   | <b>411.84</b>   | <b>445.97</b>   | <b>507.18</b>   | <b>580.93</b>   | <b>625.09</b>   | <b>648.72</b>   | <b>681.30</b>   |
| <b>Other Costs (Revenues)</b>                  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  |
| Curtailment Costs, net                         | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            |
| Net losses (gains) on disposal of fixed assets | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            |
| Net other costs (gains)                        | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         |
| <b>EBIT</b>                                    | <b>435.56</b>   | <b>415.29</b>   | <b>476.84</b>   | <b>510.97</b>   | <b>572.18</b>   | <b>645.93</b>   | <b>690.09</b>   | <b>713.72</b>   | <b>746.30</b>   |
| <b>Financial Expenses (Income)</b>             | <b>131.60</b>   | <b>73.48</b>    | <b>147.51</b>   | <b>125.08</b>   | <b>137.48</b>   | <b>52.53</b>    | <b>70.83</b>    | <b>72.28</b>    | <b>28.72</b>    |
| Equity in earnings of affiliates, net          | - 195.58        | - 205.36        | - 215.63        | - 226.41        | - 237.73        | - 249.62        | - 262.10        | - 275.21        | - 288.97        |
| Interests                                      | 327.19          | 278.85          | 363.14          | 351.49          | 375.21          | 302.15          | 332.93          | 347.48          | 317.68          |
| <b>EBT</b>                                     | <b>303.95</b>   | <b>341.80</b>   | <b>329.33</b>   | <b>385.89</b>   | <b>434.70</b>   | <b>593.40</b>   | <b>619.27</b>   | <b>641.44</b>   | <b>717.58</b>   |
| Taxes  | 144.80          | 102.54          | 98.80           | 115.77          | 130.41          | 178.02          | 185.78          | 192.43          | 215.27          |
| <b>Consolidated Net Income</b>                 | <b>159.15</b>   | <b>239.26</b>   | <b>230.53</b>   | <b>270.12</b>   | <b>304.29</b>   | <b>415.38</b>   | <b>433.49</b>   | <b>449.01</b>   | <b>502.31</b>   |

## Appendix 18 – PT's Total-Oi Quarterly P&amp;L

| Portugal and Others & Eliminations P&L         |                |                |                |                |
|--|----------------|----------------|----------------|----------------|
| € (mn)   | Q1 2012        | Q2 2012        | Q3 2012        | Q4 2012        |
| EBITDA Portugal                                | 307.70         | 307.30         | 302.83         | 289.35         |
| EBITDA Others and Eliminations                 | 36.80          | 38.80          | 34.49          | 34.89          |
| <b>EBITDA</b>                                  | <b>344.50</b>  | <b>346.10</b>  | <b>337.32</b>  | <b>324.24</b>  |
| Post retirement Benefits                       | 14.80          | 14.00          | 13.48          | 17.53          |
| Depreciation and Amortization                  | 287.17         | 206.26         | 215.60         | 212.77         |
| <b>Operational Results</b>                     | <b>42.53</b>   | <b>125.84</b>  | <b>108.25</b>  | <b>93.94</b>   |
| <b>Other Costs (Revenues)</b>                  | <b>11.20</b>   | <b>- 25.40</b> | <b>- 25.40</b> | <b>- 25.40</b> |
| Curtailment Costs, net                         | 0.90           | -              | -              | -              |
| Net losses (gains) on disposal of fixed assets | 0.90           | 1.20           | 1.20           | 1.20           |
| Net other costs (gains)                        | 9.40           | - 26.60        | - 26.60        | - 26.60        |
| <b>EBIT</b>                                    | <b>31.33</b>   | <b>151.24</b>  | <b>133.65</b>  | <b>119.34</b>  |
| <b>Financial Expenses (Income)</b>             | <b>72.52</b>   | <b>20.70</b>   | <b>20.39</b>   | <b>17.99</b>   |
| Equity in earnings of affiliates, net          | - 46.20        | - 49.30        | - 49.79        | - 50.29        |
| Interests                                      | 118.72         | 70.00          | 70.18          | 68.28          |
| <b>EBT</b>                                     | <b>- 41.19</b> | <b>130.53</b>  | <b>113.26</b>  | <b>101.35</b>  |
| Taxes  | 23.55          | 56.87          | 33.98          | 30.41          |
| <b>Consolidated Net Income</b>                 | <b>- 64.74</b> | <b>73.66</b>   | <b>79.28</b>   | <b>70.95</b>   |

## Appendix 19 – PT's Oi Consolidated P&L

| P&L of Oi Consolidated by PT  |               |               |               |               |               |               |               |               |               |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| € (mn)                        | 2012 E        | 2013 E        | 2014 E        | 2015 E        | 2016 E        | 2017 E        | 2018 E        | 2019 E        | 2020 E        |
| Net Operating Revenues        | 2,695.65      | 2,557.50      | 2,637.90      | 2,596.43      | 2,552.46      | 2,496.73      | 2,440.50      | 2,378.44      | 2,307.00      |
| Operating Expenses            | 1,887.80      | 1,770.86      | 1,812.89      | 1,769.64      | 1,726.18      | 1,680.32      | 1,636.27      | 1,591.18      | 1,544.06      |
| <b>EBITDA Pro-Forma</b>       | <b>807.84</b> | <b>786.64</b> | <b>825.01</b> | <b>826.80</b> | <b>826.28</b> | <b>816.40</b> | <b>804.24</b> | <b>787.25</b> | <b>762.94</b> |
| <b>EBITDA Consolidated</b>    | <b>724.08</b> | <b>786.64</b> | <b>825.01</b> | <b>826.80</b> | <b>826.28</b> | <b>816.40</b> | <b>804.24</b> | <b>787.25</b> | <b>762.94</b> |
| Depreciation and Amortization | 410.03        | 423.73        | 434.93        | 425.55        | 415.66        | 404.89        | 391.70        | 375.57        | 356.41        |
| <b>EBIT</b>                   | <b>314.05</b> | <b>362.90</b> | <b>390.08</b> | <b>401.24</b> | <b>410.62</b> | <b>411.51</b> | <b>412.54</b> | <b>411.68</b> | <b>406.53</b> |
| Net Financial Income          | - 185.91      | - 189.09      | - 206.07      | - 211.20      | - 207.53      | - 208.12      | - 205.01      | - 198.31      | - 187.98      |
| <b>EBT</b>                    | <b>128.14</b> | <b>173.81</b> | <b>184.00</b> | <b>190.04</b> | <b>203.10</b> | <b>203.40</b> | <b>207.52</b> | <b>213.37</b> | <b>218.55</b> |
| Taxes                         | 32.01         | 52.14         | 55.20         | 57.01         | 60.93         | 61.02         | 62.26         | 64.01         | 65.56         |
| <b>Net Income</b>             | <b>95.52</b>  | <b>132.79</b> | <b>141.61</b> | <b>146.83</b> | <b>156.42</b> | <b>157.34</b> | <b>160.69</b> | <b>165.01</b> | <b>168.61</b> |

## Appendix 20 – PT's Oi Consolidated Quarterly P&L

| P&L of Oi Consolidated by PT  |               |               |               |               |
|-------------------------------|---------------|---------------|---------------|---------------|
| € (mn)                        | Q1 2012       | Q2 2012       | Q3 2012       | Q4 2012       |
| Net Operating Revenues        | 690.90        | 701.97        | 710.67        | 684.70        |
| Operating Expenses            | 486.50        | 484.47        | 495.52        | 485.86        |
| <b>EBITDA Pro-Forma</b>       | <b>204.39</b> | <b>217.50</b> | <b>215.15</b> | <b>198.84</b> |
| <b>EBITDA Consolidated</b>    | <b>116.77</b> | <b>217.50</b> | <b>215.15</b> | <b>198.84</b> |
| Depreciation and Amortization | 59.53         | 130.44        | 118.76        | 114.89        |
| <b>EBIT</b>                   | <b>57.24</b>  | <b>87.06</b>  | <b>96.39</b>  | <b>83.95</b>  |
| Net Financial Income          | - 24.08       | - 70.20       | - 49.43       | - 48.54       |
| <b>EBT</b>                    | <b>33.17</b>  | <b>16.86</b>  | <b>46.96</b>  | <b>35.42</b>  |
| Taxes                         | - 1.95        | 10.23         | 14.09         | 10.63         |
| <b>Net Income</b>             | <b>35.06</b>  | <b>6.44</b>   | <b>32.68</b>  | <b>24.61</b>  |

## Appendix 21 – PT's Consolidated P&amp;L

| (€ mn)  | 2010            | 2011            | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Operating Revenues</b>                                 | <b>3,742.20</b> | <b>6,146.80</b> | <b>6,573.49</b> | <b>6,212.15</b> | <b>6,286.02</b> | <b>6,228.68</b> | <b>6,218.09</b> | <b>6,220.20</b> | <b>6,195.01</b> | <b>6,149.74</b> | <b>6,108.47</b> |
| Portugal  | 3,124.40        | 2,892.00        | 2,687.24        | 2,586.13        | 2,562.38        | 2,528.44        | 2,542.84        | 2,580.76        | 2,590.87        | 2,585.71        | 2,592.81        |
| Residential   | 647.00          | 682.30          | 720.53          | 749.63          | 773.48          | 790.49          | 816.03          | 836.51          | 843.27          | 847.54          | 851.83          |
| Personal  | 865.00          | 768.40          | 665.08          | 613.98          | 615.25          | 610.97          | 622.37          | 639.81          | 643.17          | 633.73          | 636.54          |
| Enterprise  | 1,079.60        | 982.10          | 884.74          | 813.96          | 773.26          | 734.60          | 719.90          | 719.90          | 719.90          | 719.90          | 719.90          |
| Wholesale, other and eliminations                         | 532.80          | 459.20          | 416.90          | 408.56          | 400.39          | 392.38          | 384.54          | 384.54          | 384.54          | 384.54          | 384.54          |
| Brasil -OI  | -               | 2,412.10        | 3,040.64        | 2,764.02        | 2,844.42        | 2,802.96        | 2,758.99        | 2,703.25        | 2,647.03        | 2,584.96        | 2,513.53        |
| Others and Eliminations                                   | 617.80          | 842.70          | 845.61          | 862.01          | 879.22          | 897.29          | 916.26          | 936.18          | 957.10          | 979.07          | 1,002.13        |
| <b>Operating Costs</b>                                    | <b>2,250.50</b> | <b>3,958.90</b> | <b>4,356.94</b> | <b>4,114.76</b> | <b>4,133.30</b> | <b>4,083.18</b> | <b>4,049.00</b> | <b>4,019.18</b> | <b>3,989.51</b> | <b>3,961.30</b> | <b>3,932.22</b> |
| <b>EBITDA</b>   | <b>1,491.70</b> | <b>2,187.90</b> | <b>2,216.55</b> | <b>2,097.39</b> | <b>2,152.71</b> | <b>2,145.50</b> | <b>2,169.08</b> | <b>2,201.02</b> | <b>2,205.50</b> | <b>2,188.43</b> | <b>2,176.26</b> |
| Post retirement Benefits                                  | 38.20           | 58.50           | 59.81           | 58.71           | 57.63           | 56.57           | 55.54           | 54.52           | 53.53           | 52.55           | 51.60           |
| Depreciation and Amortization                             | 758.60          | 1,325.60        | 1,331.83        | 1,325.49        | 1,293.17        | 1,241.71        | 1,195.74        | 1,154.05        | 1,114.34        | 1,075.48        | 1,036.83        |
| <b>Income from Operations</b>                             | <b>694.90</b>   | <b>803.80</b>   | <b>824.92</b>   | <b>713.19</b>   | <b>801.92</b>   | <b>847.22</b>   | <b>917.80</b>   | <b>992.45</b>   | <b>1,037.63</b> | <b>1,060.40</b> | <b>1,087.83</b> |
| <b>Other Expenses (Income)</b>                            | <b>281.20</b>   | <b>59.80</b>    | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  | <b>- 65.00</b>  |
| Curtailment Costs, net                                    | 145.50          | 36.40           | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            | 0.90            |
| Net losses (gains) on disposal of fixed assets            | - 5.50          | 9.20            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            | 4.50            |
| Net other costs (gains)                                   | 141.20          | 32.60           | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         | - 70.40         |
| <b>EBIT</b>   | <b>413.70</b>   | <b>744.00</b>   | <b>889.92</b>   | <b>778.19</b>   | <b>866.92</b>   | <b>912.22</b>   | <b>982.80</b>   | <b>1,057.45</b> | <b>1,102.63</b> | <b>1,125.40</b> | <b>1,152.83</b> |
| Financial Expenses (Income)                               | 81.60           | 212.90          | 317.52          | 262.58          | 353.58          | 336.28          | 345.01          | 260.65          | 275.84          | 270.59          | 216.70          |
| <b>Income before Income Taxes</b>                         | <b>332.10</b>   | <b>531.10</b>   | <b>572.40</b>   | <b>515.61</b>   | <b>513.33</b>   | <b>575.94</b>   | <b>637.80</b>   | <b>796.80</b>   | <b>826.79</b>   | <b>854.81</b>   | <b>936.13</b>   |
| Provision for Income Taxes                                | 77.50           | 108.20          | 176.81          | 154.68          | 154.00          | 172.78          | 191.34          | 239.04          | 248.04          | 256.44          | 280.84          |
| <b>Income Before non-controlling interests</b>            | <b>254.60</b>   | <b>422.90</b>   | <b>395.59</b>   | <b>360.93</b>   | <b>359.33</b>   | <b>403.15</b>   | <b>446.46</b>   | <b>557.76</b>   | <b>578.76</b>   | <b>598.37</b>   | <b>655.29</b>   |
| Losses (income) attributable to non-controlling interests | - 147.90        | - 83.80         | - 80.49         | - 87.13         | - 91.68         | - 96.09         | - 101.10        | - 105.54        | - 110.41        | - 115.59        | - 120.96        |
| Oi  | -               | -               | - 8.88          | - 11.93         | - 12.72         | - 13.19         | - 14.05         | - 14.14         | - 14.44         | - 14.83         | - 15.15         |
| Others  | -               | -               | - 71.61         | - 75.20         | - 78.96         | - 82.90         | - 87.05         | - 91.40         | - 95.97         | - 100.77        | - 105.81        |
| <b>Consolidated Net Income</b>                            | <b>106.70</b>   | <b>339.10</b>   | <b>315.10</b>   | <b>273.80</b>   | <b>267.66</b>   | <b>307.06</b>   | <b>345.36</b>   | <b>452.22</b>   | <b>468.35</b>   | <b>482.77</b>   | <b>534.34</b>   |

## Appendix 22 – PT's Consolidated Quarterly P&amp;L

| (€ mn)  | Q1 2012         | Q2 2012         | Q3 2012         | Q4 2012         |
|---|-----------------|-----------------|-----------------|-----------------|
| <b>Operating Revenues</b>                                 | <b>1,715.70</b> | <b>1,628.90</b> | <b>1,632.86</b> | <b>1,596.03</b> |
| Portugal  | 680.40          | 678.00          | 671.02          | 657.83          |
| Residential   | 176.90          | 178.50          | 182.92          | 182.20          |
| Personal  | 169.30          | 170.30          | 165.69          | 159.80          |
| Enterprise  | 226.00          | 226.30          | 219.51          | 212.93          |
| Wholesale, other and eliminations                         | 108.20          | 102.90          | 102.90          | 102.90          |
| Brasil -OI  | 788.40          | 753.60          | 762.30          | 736.33          |
| Others and Eliminations                                   | 246.90          | 197.30          | 199.54          | 201.87          |
| <b>Operating Costs</b>                                    | <b>1,144.00</b> | <b>1,059.60</b> | <b>1,080.39</b> | <b>1,072.95</b> |
| <b>EBITDA</b>   | <b>571.70</b>   | <b>569.30</b>   | <b>552.47</b>   | <b>523.08</b>   |
| Post retirement Benefits                                  | 14.80           | 14.00           | 13.48           | 17.53           |
| Depreciation and Amortization                             | 346.70          | 336.70          | 334.36          | 327.65          |
| <b>Income from Operations</b>                             | <b>210.20</b>   | <b>218.60</b>   | <b>204.64</b>   | <b>177.89</b>   |
| <b>Other Expenses (Income)</b>                            | <b>11.20</b>    | <b>- 25.40</b>  | <b>- 25.40</b>  | <b>- 25.40</b>  |
| Curtailment Costs, net                                    | 0.90            | -               | -               | -               |
| Net losses (gains) on disposal of fixed assets            | 0.90            | 1.20            | 1.20            | 1.20            |
| Net other costs (gains)                                   | 9.40            | - 26.60         | - 26.60         | - 26.60         |
| <b>EBIT</b>   | <b>199.00</b>   | <b>244.00</b>   | <b>230.04</b>   | <b>203.29</b>   |
| Financial Expenses (Income)                               | 96.60           | 90.90           | 69.82           | 66.52           |
| <b>Income before Income Taxes</b>                         | <b>102.40</b>   | <b>153.10</b>   | <b>160.22</b>   | <b>136.77</b>   |
| Provision for Income Taxes                                | 21.60           | 67.10           | 48.07           | 41.03           |
| <b>Income Before non-controlling interests</b>            | <b>80.80</b>    | <b>86.00</b>    | <b>112.15</b>   | <b>95.74</b>    |
| Losses (income) attributable to non-controlling interests | - 24.40         | - 17.20         | - 19.72         | - 19.17         |
| Oi  | - 3.15          | - 0.58          | - 2.94          | - 2.21          |
| Others  | - 21.25         | - 16.62         | - 16.79         | - 16.96         |
| <b>Consolidated Net Income</b>                            | <b>56.40</b>    | <b>68.80</b>    | <b>92.43</b>    | <b>76.57</b>    |

## Appendix 23 – PT's Oi Consolidated Balance Sheet

## Oi Balance Sheet Consolidated by PT

| € (mn)                          | 2011            | 2012 E          | 2013 E          | 2014 E          | 2015 E          | 2016 E          | 2017 E          | 2018 E          | 2019 E          | 2020 E          |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Current Assets</b>           | <b>1,244.04</b> | <b>1,807.83</b> | <b>1,649.76</b> | <b>1,704.43</b> | <b>1,685.36</b> | <b>1,725.92</b> | <b>1,600.89</b> | <b>1,474.96</b> | <b>1,404.80</b> | <b>1,376.65</b> |
| Cash and Cash Equivalents       | 610.03          | 421.60          | 374.13          | 413.63          | 439.24          | 523.19          | 443.02          | 360.31          | 333.39          | 349.56          |
| Financial Investments           | 110.12          | 225.79          | 203.88          | 201.06          | 188.87          | 177.43          | 166.67          | 156.57          | 147.08          | 138.17          |
| Derivatives                     | 0.71            | 15.54           | 14.03           | 13.84           | 13.00           | 12.21           | 11.47           | 10.77           | 10.12           | 9.51            |
| Accounts Receivable             | 204.19          | 555.37          | 518.60          | 534.91          | 526.50          | 517.58          | 506.28          | 494.88          | 482.29          | 467.81          |
| Recoverable Taxes               | 115.50          | 193.60          | 180.78          | 186.46          | 183.53          | 180.43          | 176.49          | 172.51          | 168.12          | 163.07          |
| Inventories                     | 1.32            | 27.09           | 25.30           | 26.09           | 25.68           | 25.25           | 24.70           | 24.14           | 23.53           | 22.82           |
| Assets in Escrow                | 167.72          | 223.27          | 201.60          | 198.81          | 186.76          | 175.44          | 164.81          | 154.82          | 145.44          | 136.62          |
| Other Current Assets            | 34.44           | 145.58          | 131.45          | 129.63          | 121.77          | 114.39          | 107.46          | 100.95          | 94.83           | 89.08           |
| <b>Non Current Assets</b>       | <b>1,972.62</b> | <b>5,715.38</b> | <b>5,338.39</b> | <b>5,446.81</b> | <b>5,289.99</b> | <b>5,128.22</b> | <b>4,945.02</b> | <b>4,738.68</b> | <b>4,506.66</b> | <b>4,259.02</b> |
| Long Term                       | 1,272.99        | 1,789.68        | 1,649.34        | 1,657.83        | 1,589.36        | 1,523.67        | 1,458.07        | 1,395.41        | 1,334.03        | 1,272.83        |
| Taxes                           | 524.29          | 728.50          | 691.16          | 712.89          | 701.68          | 689.80          | 674.74          | 659.55          | 642.77          | 623.47          |
| Financial Investments           | 1.32            | 6.02            | 5.44            | 5.36            | 5.04            | 4.73            | 4.44            | 4.18            | 3.92            | 3.68            |
| Assets in Escrow                | 503.37          | 882.59          | 796.92          | 785.91          | 738.28          | 693.53          | 651.50          | 612.02          | 574.92          | 540.08          |
| Derivatives                     | -               | 52.15           | 47.09           | 46.44           | 43.62           | 40.98           | 38.50           | 36.16           | 33.97           | 31.91           |
| Other Assets                    | 244.01          | 120.42          | 108.73          | 107.23          | 100.73          | 94.63           | 88.89           | 83.51           | 78.44           | 73.69           |
| Investments                     | 0.81            | 7.58            | 6.84            | 6.75            | 6.34            | 5.95            | 5.59            | 5.25            | 4.93            | 4.64            |
| Fixed Assets                    | 588.60          | 2,344.87        | 2,203.68        | 2,263.54        | 2,210.92        | 2,153.65        | 2,083.48        | 1,997.70        | 1,895.76        | 1,784.36        |
| Intangible Assets               | 110.22          | 1,573.25        | 1,478.52        | 1,518.68        | 1,483.38        | 1,444.95        | 1,397.87        | 1,340.32        | 1,271.93        | 1,197.19        |
| <b>Total Assets</b>             | <b>3,216.66</b> | <b>7,523.21</b> | <b>6,988.15</b> | <b>7,151.23</b> | <b>6,975.34</b> | <b>6,854.14</b> | <b>6,545.91</b> | <b>6,213.64</b> | <b>5,911.46</b> | <b>5,635.67</b> |
| <b>Current Liabilities</b>      | <b>875.78</b>   | <b>1,399.68</b> | <b>1,292.01</b> | <b>1,323.73</b> | <b>1,282.49</b> | <b>1,254.31</b> | <b>1,204.54</b> | <b>1,151.65</b> | <b>1,100.68</b> | <b>1,051.15</b> |
| Suppliers                       | 200.43          | 403.24          | 367.43          | 376.15          | 367.17          | 358.16          | 348.64          | 339.50          | 330.15          | 320.37          |
| Loans and Financing             | 116.22          | 320.22          | 310.80          | 331.84          | 326.87          | 333.28          | 318.63          | 299.32          | 281.18          | 264.14          |
| Financial Instruments           | 2.64            | 13.75           | 13.34           | 14.25           | 14.03           | 14.31           | 13.68           | 12.85           | 12.07           | 11.34           |
| Others                          | 556.50          | 662.48          | 600.44          | 601.49          | 574.41          | 548.57          | 523.59          | 499.98          | 477.29          | 455.30          |
| Payroll and Related Accruals    | 13.21           | 51.96           | 47.34           | 48.47           | 47.31           | 46.15           | 44.92           | 43.75           | 42.54           | 41.28           |
| Provisions                      | 138.26          | 161.12          | 145.48          | 143.47          | 134.77          | 126.60          | 118.93          | 111.72          | 104.95          | 98.59           |
| Taxes                           | 169.04          | 221.38          | 201.72          | 206.51          | 201.58          | 196.63          | 191.41          | 186.39          | 181.26          | 175.89          |
| Dividends                       | 31.29           | 25.15           | 22.71           | 22.40           | 21.04           | 19.77           | 18.57           | 17.44           | 16.38           | 15.39           |
| Other Accounts                  | 204.70          | 202.87          | 183.18          | 180.65          | 169.70          | 159.42          | 149.76          | 140.68          | 132.15          | 124.14          |
| <b>Non-Current Liabilities</b>  | <b>1,265.37</b> | <b>4,150.27</b> | <b>3,960.75</b> | <b>4,151.97</b> | <b>4,055.69</b> | <b>4,062.91</b> | <b>3,884.17</b> | <b>3,666.54</b> | <b>3,460.96</b> | <b>3,266.38</b> |
| Loans and Financing             | 707.25          | 2,836.67        | 2,753.29        | 2,939.62        | 2,895.65        | 2,952.38        | 2,822.63        | 2,651.56        | 2,490.86        | 2,339.90        |
| Financial Instruments           | -               | 14.24           | 13.82           | 14.76           | 14.53           | 14.82           | 14.17           | 13.31           | 12.50           | 11.74           |
| Taxes                           | 92.44           | 580.71          | 544.73          | 557.66          | 544.36          | 530.99          | 516.88          | 503.33          | 489.46          | 474.97          |
| Contingency Provisions          | 318.17          | 506.17          | 457.04          | 450.72          | 423.40          | 397.74          | 373.64          | 350.99          | 329.72          | 309.74          |
| Provisions for the Pension Fund | 55.47           | 43.31           | 39.11           | 38.57           | 36.23           | 34.04           | 31.97           | 30.04           | 28.21           | 26.50           |
| Outstanding authorizations      | 55.26           | 103.04          | 93.04           | 91.75           | 86.19           | 80.97           | 76.06           | 71.45           | 67.12           | 63.05           |
| Other Accounts Payable          | 36.77           | 66.14           | 59.72           | 58.89           | 55.32           | 51.97           | 48.82           | 45.86           | 43.08           | 40.47           |
| <b>Total Liabilities</b>        | <b>2,141.16</b> | <b>5,549.95</b> | <b>5,252.76</b> | <b>5,475.70</b> | <b>5,338.19</b> | <b>5,317.23</b> | <b>5,088.71</b> | <b>4,818.20</b> | <b>4,561.65</b> | <b>4,317.53</b> |
| <b>Shareholder's Equity</b>     | <b>1,075.71</b> | <b>1,973.26</b> | <b>1,735.39</b> | <b>1,675.53</b> | <b>1,637.16</b> | <b>1,536.92</b> | <b>1,457.20</b> | <b>1,395.44</b> | <b>1,349.81</b> | <b>1,318.14</b> |
| Controlling Interest            | 1,075.71        | 1,969.08        | 1,731.62        | 1,671.81        | 1,633.66        | 1,533.64        | 1,454.12        | 1,392.55        | 1,347.09        | 1,315.59        |
| Minority Interest               | -               | 4.18            | 3.77            | 3.72            | 3.49            | 3.28            | 3.08            | 2.90            | 2.72            | 2.56            |
| <b>Equity + Liabilities</b>     | <b>3,216.86</b> | <b>7,523.21</b> | <b>6,988.15</b> | <b>7,151.23</b> | <b>6,975.34</b> | <b>6,854.14</b> | <b>6,545.91</b> | <b>6,213.64</b> | <b>5,911.46</b> | <b>5,635.67</b> |

## Appendix 24 – PT's Total-Oi Balance Sheet

| Portugal and Others & Eliminations Balance Sheet |                         |                         |                         |                         |                         |                         |                         |                        |                        |
|--|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|
| €  | 2012 E                  | 2013 E                  | 2014 E                  | 2015 E                  | 2016 E                  | 2017 E                  | 2018 E                  | 2019 E                 | 2020 E                 |
| <b>Current Assets</b>                            | <b>3,202,649,866.3</b>  | <b>3,544,646,064.5</b>  | <b>3,364,296,016.7</b>  | <b>3,318,099,850.8</b>  | <b>3,611,033,435.0</b>  | <b>2,925,090,026.9</b>  | <b>2,701,666,838.1</b>  | <b>2,713,415,889.0</b> | <b>2,409,639,020.2</b> |
| Cash and Cash Equivalents                        | 1,301,481,577.4         | 1,597,355,810.6         | 1,420,429,359.4         | 1,382,540,375.9         | 1,658,001,636.3         | 941,775,360.5           | 702,107,503.2           | 705,062,866.7          | 385,493,709.8          |
| Short-term Investments                           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6           | 275,173,809.6          | 275,173,809.6          |
| Accounts Receivable                              | 1,413,729,183.3         | 1,407,986,773.6         | 1,405,316,344.0         | 1,398,836,682.8         | 1,412,465,219.4         | 1,436,086,071.3         | 1,448,757,028.1         | 1,455,616,166.8        | 1,467,934,263.7        |
| Inventories                                      | 121,322,160.7           | 134,093,978.4           | 133,839,651.8           | 133,222,541.2           | 134,520,497.1           | 136,770,102.0           | 137,976,859.8           | 138,630,111.1          | 139,803,263.2          |
| Taxes Receivable                                 | 109,466,791.1           | 109,763,796.6           | 109,555,615.3           | 109,050,474.0           | 110,112,927.1           | 111,954,360.9           | 112,942,163.0           | 113,476,887.6          | 114,437,181.4          |
| Prepaid Expenses                                 | 114,454,709.6           | 153,250,261.1           | 152,959,602.1           | 152,254,332.8           | 153,737,711.0           | 156,308,688.0           | 157,687,839.8           | 158,434,412.7          | 159,775,158.0          |
| Judicial Deposits                                | 1,406,615.3             | 1,406,615.3             | 1,406,615.3             | 1,406,615.3             | 1,406,615.3             | 1,406,615.3             | 1,406,615.3             | 1,406,615.3            | 1,406,615.3            |
| Other Current Assets                             | 131,571,750.1           | 131,571,750.1           | 131,571,750.1           | 131,571,750.1           | 131,571,750.1           | 131,571,750.1           | 131,571,750.1           | 131,571,750.1          | 131,571,750.1          |
| <b>Non-Current Assets</b>                        | <b>8,860,862,015.0</b>  | <b>8,560,618,448.5</b>  | <b>8,253,902,096.8</b>  | <b>7,989,261,817.9</b>  | <b>7,760,694,437.4</b>  | <b>7,563,054,931.6</b>  | <b>7,391,932,311.8</b>  | <b>7,243,543,634.9</b> | <b>7,114,643,472.0</b> |
| Accounts Receivable                              | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0           | 17,516,388.0           |
| Taxes Receivable                                 | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0           | 57,079,986.0           |
| Financial Investments                            | 580,661,947.3           | 580,661,947.3           | 580,661,947.3           | 580,661,947.3           | 580,661,947.3           | 580,661,947.3           | 580,661,947.3           | 580,661,947.3          | 580,661,947.3          |
| Intangible Assets                                | 3,596,613,914.4         | 3,352,489,263.2         | 3,148,910,747.6         | 2,979,890,591.5         | 2,840,339,196.3         | 2,725,930,639.7         | 2,632,988,326.2         | 2,558,387,770.9        | 2,499,473,948.4        |
| Tangible Assets                                  | 4,099,100,797.3         | 4,042,981,882.0         | 3,939,844,045.9         | 3,844,223,923.1         | 3,755,207,937.8         | 3,671,976,988.6         | 3,593,796,682.3         | 3,520,008,560.8        | 3,450,022,220.4        |
| Post Retirement Benefits                         | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0           | 13,553,019.0           |
| Deferred Taxes                                   | 505,711,075.7           | 505,711,075.7           | 505,711,075.7           | 505,711,075.7           | 505,711,075.7           | 505,711,075.7           | 505,711,075.7           | 505,711,075.7          | 505,711,075.7          |
| Judicial Deposits                                | 6,718,606.2             | 6,718,606.2             | 6,718,606.2             | 6,718,606.2             | 6,718,606.2             | 6,718,606.2             | 6,718,606.2             | 6,718,606.2            | 6,718,606.2            |
| Other non-current assets                         | 16,093,719.0            | 16,093,719.0            | 16,093,719.0            | 16,093,719.0            | 16,093,719.0            | 16,093,719.0            | 16,093,719.0            | 16,093,719.0           | 16,093,719.0           |
| <b>Total Assets</b>                              | <b>12,063,511,881.3</b> | <b>12,105,264,512.9</b> | <b>11,618,198,113.5</b> | <b>11,307,361,668.7</b> | <b>11,371,727,872.5</b> | <b>10,488,144,958.5</b> | <b>10,093,599,149.9</b> | <b>9,956,959,523.9</b> | <b>9,524,282,492.2</b> |
| <b>Current Liabilities</b>                       | <b>3,969,434,912.7</b>  | <b>3,849,431,302.3</b>  | <b>3,728,304,488.6</b>  | <b>3,803,038,375.1</b>  | <b>3,607,447,379.3</b>  | <b>3,533,881,521.1</b>  | <b>3,534,996,904.0</b>  | <b>3,436,337,875.9</b> | <b>3,454,505,716.9</b> |
| Short-Term Debt                                  | 2,017,624,050.3         | 1,888,800,824.9         | 1,791,347,265.9         | 1,873,000,662.1         | 1,668,059,864.0         | 1,578,333,391.9         | 1,564,955,151.9         | 1,449,279,507.3        | 1,449,279,507.3        |
| Accounts Payable                                 | 626,624,333.3           | 564,029,222.2           | 557,830,445.6           | 556,018,591.0           | 558,466,810.0           | 562,698,423.3           | 566,493,538.6           | 570,949,292.8          | 576,706,491.9          |
| Accrued Expenses                                 | 780,180,784.7           | 831,200,959.0           | 822,065,919.8           | 819,395,818.3           | 823,003,721.5           | 829,239,781.7           | 834,832,583.2           | 841,398,957.8          | 848,409,567.1          |
| Deferred Income                                  | 61,239,641.6            | 61,111,866.1            | 60,440,234.4            | 60,243,924.2            | 60,509,185.8            | 60,967,675.7            | 61,378,871.8            | 61,861,647.2           | 62,377,083.8           |
| Taxes Payable                                    | 364,740,515.0           | 385,914,731.0           | 381,673,462.8           | 380,433,772.8           | 382,108,870.7           | 385,004,184.3           | 387,600,842.2           | 390,649,516.1          | 393,904,441.9          |
| Provisions                                       | 312,434,256.8           | 311,782,368.0           | 308,355,827.0           | 307,354,275.6           | 308,707,595.2           | 311,046,733.0           | 313,144,585.4           | 315,607,623.7          | 318,237,293.9          |
| Other Current Liabilities                        | 193,408,668.9           | 193,408,668.9           | 193,408,668.9           | 193,408,668.9           | 193,408,668.9           | 193,408,668.9           | 193,408,668.9           | 193,408,668.9          | 193,408,668.9          |
| <b>Non-Current Liabilities</b>                   | <b>6,417,652,738.5</b>  | <b>6,107,295,557.5</b>  | <b>5,872,513,267.5</b>  | <b>6,069,230,263.1</b>  | <b>5,575,492,831.9</b>  | <b>5,359,326,415.7</b>  | <b>5,327,095,947.5</b>  | <b>5,048,413,537.0</b> | <b>5,048,413,537.0</b> |
| Medium and Long Term Debt                        | 4,860,801,388.3         | 4,550,444,207.3         | 4,315,661,917.3         | 4,512,378,912.9         | 4,018,641,481.7         | 3,802,475,065.5         | 3,770,244,597.3         | 3,491,562,186.8        | 3,491,562,186.8        |
| Accounts Payable                                 | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0          | 148,400,640.0          |
| Taxes Payable                                    | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0          | 322,646,416.0          |
| Provisions                                       | 55,003,404.1            | 55,003,404.1            | 55,003,404.1            | 55,003,404.1            | 55,003,404.1            | 55,003,404.1            | 55,003,404.1            | 55,003,404.1           | 55,003,404.1           |
| Post Retirement Benefits                         | 457,003,524.5           | 457,003,524.5           | 457,003,524.5           | 457,003,524.5           | 457,003,524.5           | 457,003,524.5           | 457,003,524.5           | 457,003,524.5          | 457,003,524.5          |
| Deferred Taxes                                   | 399,520,858.0           | 399,520,858.0           | 399,520,858.0           | 399,520,858.0           | 399,520,858.0           | 399,520,858.0           | 399,520,858.0           | 399,520,858.0          | 399,520,858.0          |
| Other non-current Liabilities                    | 174,276,507.6           | 174,276,507.6           | 174,276,507.6           | 174,276,507.6           | 174,276,507.6           | 174,276,507.6           | 174,276,507.6           | 174,276,507.6          | 174,276,507.6          |
| <b>Total Liabilities</b>                         | <b>10,387,087,651.3</b> | <b>9,956,726,859.9</b>  | <b>9,600,817,756.1</b>  | <b>9,872,268,638.2</b>  | <b>9,182,940,211.2</b>  | <b>8,893,207,936.8</b>  | <b>8,862,092,851.5</b>  | <b>8,484,751,412.9</b> | <b>8,502,919,253.9</b> |
| <b>Total Equity</b>                              | <b>1,676,424,230.0</b>  | <b>2,148,537,653.1</b>  | <b>2,017,380,357.4</b>  | <b>1,435,093,030.5</b>  | <b>2,188,787,661.3</b>  | <b>1,594,937,021.7</b>  | <b>1,231,506,298.4</b>  | <b>1,472,208,111.1</b> | <b>1,021,363,238.3</b> |
| <b>Equity + Liabilities</b>                      | <b>12,063,511,881.3</b> | <b>12,105,264,512.9</b> | <b>11,618,198,113.5</b> | <b>11,307,361,668.7</b> | <b>11,371,727,872.4</b> | <b>10,488,144,958.4</b> | <b>10,093,599,149.9</b> | <b>9,956,959,523.9</b> | <b>9,524,282,492.2</b> |

## Appendix 25 – PT's Total-Oi Quarterly Balance Sheet

## Portugal and Others &amp; Eliminations Balance Sheet

| €                              | Q1 2012                  | Q2 2012                  | Q3 2012                  | Q4 2012                  |
|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Current Assets</b>          | <b>4,029,006,000.8</b>   | <b>3,634,717,754.9</b>   | <b>3,805,089,911.5</b>   | <b>3,202,649,866.3</b>   |
| Cash and Cash Equivalents      | 2,001,368,219.3          | 1,880,243,269.1          | 1,881,705,103.0          | 1,301,481,577.4          |
| Short-term Investments         | 495,209,720.4            | 275,173,809.6            | 275,173,809.6            | 275,173,809.6            |
| Accounts Receivable            | 1,274,823,172.1          | 1,260,770,708.6          | 1,431,585,139.5          | 1,413,729,183.3          |
| Inventories                    | 123,239,285.3            | 123,523,630.6            | 122,854,507.4            | 121,322,160.7            |
| Taxes Receivable               | 112,721,363.4            | 111,453,137.5            | 110,849,399.8            | 109,466,791.1            |
| Prepaid Expenses               | 145,792,700.0            | 116,531,565.0            | 115,900,317.6            | 114,454,709.6            |
| Judicial deposits              | 12,307,350.9             | - 1,406,615.3            | - 1,406,615.3            | - 1,406,615.3            |
| Other Current Assets           | - 136,455,810.7          | - 131,571,750.1          | - 131,571,750.1          | - 131,571,750.1          |
| <b>Non-Current Assets</b>      | <b>9,020,728,754.5</b>   | <b>8,494,515,893.9</b>   | <b>8,875,127,024.8</b>   | <b>8,860,862,015.0</b>   |
| Accounts Receivable            | 23,279,146.0             | 17,516,388.0             | 17,516,388.0             | 17,516,388.0             |
| Taxes Receivable               | 58,309,452.0             | 57,079,986.0             | 57,079,986.0             | 57,079,986.0             |
| Financial Investments          | 531,072,303.7            | 580,661,947.3            | 580,661,947.3            | 580,661,947.3            |
| Intangible Assets              | 3,973,837,753.9          | 3,706,825,089.0          | 3,675,376,568.8          | 3,596,613,914.4          |
| Tangible Assets                | 3,793,298,434.0          | 3,622,543,501.6          | 4,034,603,152.8          | 4,099,100,797.3          |
| Post Retirement Benefits       | 14,029,387.0             | 13,553,019.0             | 13,553,019.0             | 13,553,019.0             |
| Deferred Taxes                 | 573,035,052.1            | 505,711,075.7            | 505,711,075.7            | 505,711,075.7            |
| Judicial Deposits              | 57,312,941.3             | 6,718,606.2              | 6,718,606.2              | 6,718,606.2              |
| Other non-current assets       | - 3,445,715.4            | - 16,093,719.0           | - 16,093,719.0           | - 16,093,719.0           |
| <b>Total Assets</b>            | <b>13,049,734,755.3</b>  | <b>12,129,233,648.8</b>  | <b>12,680,216,936.3</b>  | <b>12,063,511,881.3</b>  |
| <b>Current Liabilities</b>     | <b>3,494,248,935.8</b>   | <b>4,125,189,518.3</b>   | <b>4,097,069,209.0</b>   | <b>3,969,434,912.7</b>   |
| Short-Term Debt                | 1,404,725,228.9          | 2,198,460,950.3          | 2,154,174,362.5          | 2,017,624,050.3          |
| Accounts Payable               | 526,629,223.2            | 619,297,728.3            | 624,019,941.3            | 626,624,333.3            |
| Accrued Expenses               | 880,785,844.0            | 771,058,770.0            | 776,938,177.5            | 780,180,784.7            |
| Deferred Income                | 7,411,492.7              | 60,523,616.7             | 60,985,115.8             | 61,239,641.6             |
| Taxes Payable                  | 414,423,019.0            | 360,475,903.0            | 363,224,571.2            | 364,740,515.0            |
| Provisions                     | 143,785,397.0            | 308,781,219.0            | 311,135,709.6            | 312,434,256.8            |
| Other Current Liabilities      | 116,488,731.0            | - 193,408,668.9          | - 193,408,668.9          | - 193,408,668.9          |
| <b>Non-Current Liabilities</b> | <b>8,512,266,286.3</b>   | <b>7,307,319,757.2</b>   | <b>7,200,625,793.5</b>   | <b>6,417,652,738.5</b>   |
| Medium and Long Term Debt      | 6,356,114,809.6          | 5,296,468,407.0          | 5,189,774,443.3          | 4,860,801,388.3          |
| Accounts Payable               | 195,122,222.0            | 148,400,640.0            | 148,400,640.0            | 148,400,640.0            |
| Taxes Payable                  | 323,256,605.0            | 322,646,416.0            | 322,646,416.0            | 322,646,416.0            |
| Provisions                     | 89,049,743.7             | 55,003,404.1             | 55,003,404.1             | 55,003,404.1             |
| Post Retirement Benefits       | 938,356,690.5            | 911,003,524.5            | 911,003,524.5            | 457,003,524.5            |
| Deferred taxes                 | 460,736,588.7            | 399,520,858.0            | 399,520,858.0            | 399,520,858.0            |
| Other non-current Liabilities  | 149,629,626.9            | 174,276,507.6            | 174,276,507.6            | 174,276,507.6            |
| <b>Total Liabilities</b>       | <b>12,006,515,222.1</b>  | <b>11,432,509,275.6</b>  | <b>11,297,695,002.4</b>  | <b>10,387,087,651.3</b>  |
| <b>Total Equity</b>            | <b>1,043,016,358.6</b>   | <b>865,379,293.9</b>     | <b>1,382,521,933.9</b>   | <b>1,676,424,230.0</b>   |
| <b>Equity + Liabilities</b>    | <b>13,049,531,580.73</b> | <b>12,297,888,569.43</b> | <b>12,680,216,936.29</b> | <b>12,063,511,881.32</b> |

## Appendix 26 – PT's Consolidated Balance Sheet

| Portugal Telecom Balance Sheet |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|--------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| E                              | 2011                    | 2012 E                  | 2013 E                  | 2014 F                  | 2015 F                  | 2016 F                  | 2017 E                  | 2018 E                  | 2019 E                  | 2020 E                  |
| <b>Current Assets</b>          | <b>8,433,036,041.0</b>  | <b>5,010,481,945.6</b>  | <b>5,194,410,374.1</b>  | <b>5,068,723,486.8</b>  | <b>5,003,458,247.2</b>  | <b>5,336,953,283.4</b>  | <b>4,525,983,908.2</b>  | <b>4,176,628,824.3</b>  | <b>4,118,219,082.2</b>  | <b>3,786,287,500.0</b>  |
| Cash and Cash Equivalents      | 4,930,012,396.0         | 1,723,080,081.2         | 1,971,486,439.8         | 1,834,055,245.9         | 1,821,776,274.0         | 2,181,191,648.8         | 1,384,791,799.1         | 1,062,415,921.8         | 1,038,448,553.3         | 735,054,711.5           |
| Short-Term Investments         | 738,112,198.0           | 516,506,609.1           | 493,082,021.0           | 490,070,460.5           | 477,046,421.0           | 464,811,717.3           | 453,318,510.8           | 442,521,862.2           | 432,379,556.0           | 422,851,935.0           |
| Accounts Receivable            | 1,912,970,148.0         | 1,969,097,178.2         | 1,926,590,102.2         | 1,940,223,323.9         | 1,925,335,376.6         | 1,930,048,023.8         | 1,942,366,711.5         | 1,943,637,006.0         | 1,937,909,966.0         | 1,935,743,233.3         |
| Inventories                    | 133,506,967.0           | 148,412,181.2           | 159,390,673.5           | 159,931,614.6           | 159,931,614.6           | 158,904,360.4           | 159,767,412.5           | 161,465,714.7           | 162,155,681.6           | 162,622,285.3           |
| Taxes Receivable               | 374,500,400.0           | 303,663,687.5           | 290,544,820.6           | 296,019,963.4           | 292,583,760.1           | 290,538,204.5           | 288,439,793.1           | 285,453,414.4           | 281,600,696.5           | 277,511,693.2           |
| Prepaid Expenses               | 73,584,328.0            | 114,454,709.6           | 153,250,261.1           | 152,959,602.1           | 152,254,332.8           | 153,737,711.0           | 156,308,688.0           | 157,687,839.8           | 158,434,412.7           | 159,775,158.0           |
| Judicial deposits              | 229,321,275.0           | 221,862,642.7           | 200,191,363.8           | 197,405,215.8           | 185,356,013.9           | 174,037,066.7           | 163,404,116.3           | 153,415,587.1           | 144,032,423.3           | 135,217,936.1           |
| Other Current Assets           | 41,028,329.0            | 14,004,856.2            | 125,307.9               | 1,941,939.3             | 9,798,291.5             | 17,178,501.1            | 24,111,425.3            | 30,624,172.2            | 36,742,207.3            | 42,489,452.3            |
| <b>Non-Current Assets</b>      | <b>14,743,355,400.0</b> | <b>14,576,238,257.1</b> | <b>13,899,004,905.8</b> | <b>13,700,707,148.5</b> | <b>13,279,246,969.8</b> | <b>12,888,917,155.6</b> | <b>12,508,073,431.2</b> | <b>12,130,614,259.9</b> | <b>11,750,201,891.3</b> | <b>11,373,665,128.2</b> |
| Accounts Receivable            | 23,321,001.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            |
| Taxes Receivable               | 56,406,992.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            |
| Financial Investments          | 556,329,005.0           | 638,834,320.4           | 633,187,910.6           | 632,461,985.1           | 629,322,588.9           | 626,373,459.1           | 623,603,064.5           | 621,000,572.5           | 618,555,807.4           | 616,259,209.8           |
| Intangible Assets              | 5,629,798,817.0         | 5,169,862,839.9         | 4,831,009,874.6         | 4,667,595,368.1         | 4,463,266,138.2         | 4,285,289,116.7         | 4,123,803,822.5         | 3,973,310,490.2         | 3,830,315,570.5         | 3,696,661,303.8         |
| Tangible Assets                | 6,228,620,568.0         | 6,451,546,301.1         | 6,253,503,012.1         | 6,210,133,647.1         | 6,061,477,827.5         | 5,914,805,812.7         | 5,761,047,940.7         | 5,596,751,039.2         | 5,420,705,247.6         | 5,239,021,929.5         |
| Post Retirement Benefits       | 13,620,935.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            |
| Deferred Taxes                 | 1,247,784,040.0         | 1,234,208,379.3         | 1,196,873,487.3         | 1,218,601,984.4         | 1,207,395,941.3         | 1,195,513,395.8         | 1,180,450,571.1         | 1,165,256,474.1         | 1,148,482,394.4         | 1,129,177,910.1         |
| Judicial Deposits              | 854,761,888.0           | 889,307,130.2           | 803,640,065.1           | 792,626,358.1           | 744,995,585.3           | 700,251,525.9           | 658,219,227.8           | 618,734,341.6           | 581,642,478.9           | 546,798,607.8           |
| Other non-current assets       | 132,710,054.0           | 104,329,891.3           | 92,641,163.2            | 91,138,412.7            | 84,639,495.6            | 78,534,452.3            | 72,799,411.6            | 67,414,949.2            | 62,350,999.6            | 57,596,774.2            |
| <b>Total Assets</b>            | <b>23,176,391,441.0</b> | <b>19,586,720,202.8</b> | <b>19,093,415,279.9</b> | <b>18,769,430,635.3</b> | <b>18,282,705,217.0</b> | <b>18,225,870,439.0</b> | <b>17,034,057,339.4</b> | <b>16,307,238,084.2</b> | <b>15,868,420,973.4</b> | <b>15,159,952,628.2</b> |
| <b>Current Liabilities</b>     | <b>6,841,525,730.0</b>  | <b>5,208,000,787.2</b>  | <b>4,995,968,693.4</b>  | <b>4,908,565,024.0</b>  | <b>4,950,758,556.4</b>  | <b>4,735,158,441.2</b>  | <b>4,619,491,265.0</b>  | <b>4,574,928,790.4</b>  | <b>4,432,070,608.7</b>  | <b>4,407,060,720.5</b>  |
| Short-Term Debt                | 3,291,558,305.0         | 2,351,586,569.3         | 2,212,947,698.7         | 2,137,430,314.6         | 2,213,907,318.6         | 2,015,645,664.2         | 1,910,643,027.7         | 1,877,124,809.7         | 1,742,529,791.9         | 1,724,757,047.4         |
| Accounts Payable               | 1,244,239,461.0         | 1,029,859,617.4         | 931,457,351.2           | 933,979,465.4           | 923,193,155.4           | 916,625,128.8           | 911,341,344.0           | 906,990,113.0           | 901,096,662.3           | 896,077,983.6           |
| Accrued Expenses               | 922,779,134.0           | 780,180,784.7           | 813,200,959.0           | 822,065,919.8           | 819,395,818.3           | 823,003,721.5           | 829,239,781.7           | 834,832,583.2           | 841,398,957.8           | 848,409,567.1           |
| Deferred Income                | 299,352,137.0           | 282,621,721.6           | 262,835,293.2           | 266,951,560.3           | 261,828,140.6           | 257,143,350.7           | 252,377,748.2           | 247,770,705.2           | 243,117,391.0           | 238,265,727.4           |
| Taxes Payable                  | 411,776,877.0           | 364,740,515.0           | 385,914,731.0           | 381,673,462.8           | 380,433,772.8           | 382,108,870.7           | 385,004,184.3           | 387,600,842.9           | 390,649,516.1           | 393,904,441.9           |
| Provisions                     | 312,150,078.0           | 312,434,256.8           | 311,782,368.0           | 308,355,827.0           | 307,354,275.6           | 308,707,595.2           | 311,046,733.0           | 313,144,585.4           | 315,607,623.7           | 318,237,293.9           |
| Other Current Liabilities      | 359,660,738.0           | 86,577,322.3            | 59,830,292.4            | 58,108,474.1            | 44,646,075.1            | 31,924,110.1            | 19,838,446.0            | 8,459,251.7             | 2,329,334.2             | 12,591,340.7            |
| <b>Non-Current Liabilities</b> | <b>12,592,692,954.0</b> | <b>10,567,924,216.2</b> | <b>10,068,046,142.2</b> | <b>10,024,485,574.9</b> | <b>10,124,924,712.6</b> | <b>9,638,404,050.9</b>  | <b>9,243,498,629.9</b>  | <b>8,993,638,837.2</b>  | <b>8,509,377,225.0</b>  | <b>8,314,792,971.1</b>  |
| Medium and Long term Debt      | 8,989,400,331.0         | 7,711,708,126.3         | 7,317,558,640.1         | 7,270,036,851.8         | 7,422,565,022.6         | 6,985,844,815.0         | 6,639,271,788.8         | 6,438,114,246.4         | 5,994,924,584.4         | 5,843,205,651.2         |
| Accounts Payable               | 201,956,286.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           |
| Taxes Payable                  | 314,378,825.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           |
| Provisions                     | 628,840,066.0           | 561,171,030.4           | 512,040,666.9           | 505,724,267.1           | 478,407,851.2           | 452,746,975.6           | 428,641,304.6           | 405,996,583.4           | 384,724,269.5           | 364,741,186.7           |
| Post Retirement Benefits       | 1,004,065,628.0         | 500,317,177.8           | 496,113,006.3           | 495,572,500.9           | 493,234,987.2           | 491,039,140.9           | 488,976,376.3           | 487,038,627.7           | 485,218,314.8           | 483,508,380.2           |
| Deferred taxes                 | 1,052,457,228.0         | 980,228,568.8           | 944,255,293.7           | 957,184,542.0           | 943,879,368.9           | 930,512,237.7           | 916,405,085.7           | 902,853,820.9           | 888,984,311.9           | 874,490,981.9           |
| Other non-current Liabilities  | 401,589,580.0           | 343,452,256.8           | 327,031,479.2           | 324,920,357.1           | 315,790,426.8           | 307,213,825.7           | 299,157,018.5           | 291,588,502.7           | 284,478,684.8           | 277,799,765.0           |
| <b>Total Liabilities</b>       | <b>19,434,218,684.0</b> | <b>15,775,925,003.3</b> | <b>15,064,014,835.6</b> | <b>14,933,050,598.9</b> | <b>15,075,683,269.0</b> | <b>14,373,562,492.1</b> | <b>13,862,989,894.8</b> | <b>13,568,567,627.5</b> | <b>12,941,447,833.7</b> | <b>12,721,853,691.6</b> |
| <b>Total Equity</b>            | <b>3,742,172,757.0</b>  | <b>3,649,680,062.8</b>  | <b>3,883,923,694.7</b>  | <b>3,692,913,821.6</b>  | <b>3,072,250,655.3</b>  | <b>3,725,704,611.2</b>  | <b>3,052,137,038.4</b>  | <b>2,626,947,953.9</b>  | <b>2,822,021,697.7</b>  | <b>2,339,508,188.1</b>  |
| <b>Equity + Liabilities</b>    | <b>23,176,391,441.0</b> | <b>19,425,605,066.2</b> | <b>18,947,938,530.3</b> | <b>18,625,964,420.5</b> | <b>18,147,933,924.3</b> | <b>18,099,267,103.4</b> | <b>16,915,126,933.3</b> | <b>16,195,515,581.4</b> | <b>15,763,469,531.5</b> | <b>15,061,361,879.7</b> |

## Appendix 27 – PT's Consolidated Quarterly Balance Sheet

| Portugal Telecom Balance Sheet |                         |                         |                         |                         |
|--------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| €                              | Q1 2012                 | Q2 2012                 | Q3 2012                 | Q4 2012                 |
| <b>Current Assets</b>          | <b>6,832,612,350.0</b>  | <b>5,618,412,993.0</b>  | <b>5,710,170,130.3</b>  | <b>5,010,481,945.6</b>  |
| Cash and Cash Equivalents      | 3,316,619,013.0         | 2,390,516,285.0         | 2,343,021,181.1         | 1,723,080,081.2         |
| Short-Term Investments         | 742,981,149.0           | 527,618,254.0           | 527,618,254.0           | 516,506,609.1           |
| Accounts Receivable            | 1,848,080,315.0         | 1,864,199,280.0         | 2,008,018,564.7         | 1,969,097,178.2         |
| Inventories                    | 147,721,825.0           | 151,968,075.0           | 150,972,068.1           | 148,412,181.2           |
| Taxes Receivable               | 370,956,284.0           | 314,729,328.0           | 311,789,538.8           | 303,063,687.5           |
| Prepaid Expenses               | 145,792,700.0           | 116,531,565.0           | 115,900,317.6           | 114,454,709.6           |
| Judicial deposits              | 240,370,843.0           | 232,142,591.0           | 232,142,591.0           | 221,862,642.7           |
| Other Current Assets           | 20,090,221.0            | 20,707,615.0            | 20,707,615.0            | 14,004,856.2            |
| <b>Non-Current Assets</b>      | <b>14,643,789,072.0</b> | <b>14,325,627,005.0</b> | <b>14,762,748,591.3</b> | <b>14,576,238,257.1</b> |
| Accounts Receivable            | 23,279,146.0            | 17,516,388.0            | 17,516,388.0            | 17,516,388.0            |
| Taxes Receivable               | 58,309,452.0            | 57,079,986.0            | 57,079,986.0            | 57,079,986.0            |
| Financial Investments          | 565,205,637.0           | 641,512,741.0           | 641,512,741.0           | 638,834,320.4           |
| Intangible Assets              | 5,543,564,738.0         | 5,299,409,216.0         | 5,286,933,334.0         | 5,169,862,839.9         |
| Tangible Assets                | 6,181,514,307.0         | 6,004,156,200.0         | 6,444,493,880.5         | 6,451,546,303.1         |
| Post Retirement Benefits       | 14,029,387.0            | 13,553,019.0            | 13,553,019.0            | 13,553,019.0            |
| Deferred Taxes                 | 1,258,139,814.0         | 1,252,580,917.0         | 1,261,840,704.9         | 1,234,208,379.3         |
| Judicial Deposits              | 892,563,735.0           | 929,944,003.0           | 929,944,003.0           | 889,307,130.2           |
| Other non-current assets       | 107,182,856.0           | 109,874,535.0           | 109,874,535.0           | 104,329,891.3           |
| <b>Total Assets</b>            | <b>21,476,401,422.0</b> | <b>19,944,039,998.0</b> | <b>20,472,918,721.7</b> | <b>19,586,720,202.8</b> |
| <b>Current Liabilities</b>     | <b>5,109,487,031.0</b>  | <b>5,383,856,185.0</b>  | <b>5,373,047,206.1</b>  | <b>5,208,000,787.2</b>  |
| Short-Term Debt                | 1,818,388,721.0         | 2,543,959,363.0         | 2,501,593,118.1         | 2,351,586,569.3         |
| Accounts Payable               | 1,021,054,620.0         | 1,021,380,268.0         | 1,035,275,426.1         | 1,029,859,617.4         |
| Accrued Expenses               | 880,785,844.0           | 771,058,770.0           | 776,938,177.5           | 780,180,784.7           |
| Deferred Income                | 272,960,699.0           | 281,272,823.0           | 286,770,403.5           | 282,621,721.6           |
| Taxes Payable                  | 414,423,019.0           | 360,475,903.0           | 363,224,571.2           | 364,740,515.0           |
| Provisions                     | 321,969,524.0           | 308,781,219.0           | 311,135,709.6           | 312,434,256.8           |
| Other Current Liabilities      | 379,904,604.0           | 96,927,839.0            | 98,109,800.1            | 86,577,322.3            |
| <b>Non-Current Liabilities</b> | <b>12,836,532,953.0</b> | <b>11,587,497,535.0</b> | <b>11,510,406,936.5</b> | <b>10,567,924,216.2</b> |
| Medium and Long term Debt      | 9,314,743,381.0         | 8,245,852,534.0         | 8,155,551,782.0         | 7,711,708,126.3         |
| Accounts Payable               | 195,122,222.0           | 148,400,640.0           | 148,400,640.0           | 148,400,640.0           |
| Taxes Payable                  | 323,256,605.0           | 322,646,416.0           | 322,646,416.0           | 322,646,416.0           |
| Provisions                     | 614,967,204.0           | 584,476,420.0           | 584,476,420.0           | 561,171,030.4           |
| Post Retirement Benefits       | 983,664,627.0           | 956,311,461.0           | 956,311,461.0           | 500,317,177.8           |
| Deferred taxes                 | 1,031,454,049.0         | 978,568,477.0           | 991,778,630.5           | 980,228,568.8           |
| Other non-current Liabilities  | 373,324,865.0           | 351,241,587.0           | 351,241,587.0           | 343,452,256.8           |
| <b>Total Liabilities</b>       | <b>17,946,019,984.0</b> | <b>16,971,353,720.0</b> | <b>16,883,454,142.6</b> | <b>15,775,925,003.3</b> |
| <b>Total Equity</b>            | <b>3,530,381,438.0</b>  | <b>2,972,706,278.0</b>  | <b>3,420,931,245.8</b>  | <b>3,649,680,062.8</b>  |
| <b>Equity + Liabilities</b>    | <b>21,476,401,422.0</b> | <b>19,944,059,998.0</b> | <b>20,304,385,388.3</b> | <b>19,425,605,066.2</b> |

## Appendix 28 – PT's Total-OI NWC Map

| Working Capital of Total-Oi |                        |                        |                        |                        |                        |                        |                        |                        |                        |
|-----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| €                           | 2012 E                 | 2013 E                 | 2014 E                 | 2015 E                 | 2016 E                 | 2017 E                 | 2018 E                 | 2019 E                 | 2020 E                 |
| <b>Total</b>                | <b>1,625,994,479.3</b> | <b>1,672,116,444.3</b> | <b>1,668,692,847.8</b> | <b>1,660,385,665.4</b> | <b>1,677,857,989.2</b> | <b>1,708,140,856.8</b> | <b>1,724,385,525.3</b> | <b>1,733,179,212.7</b> | <b>1,748,971,500.8</b> |
| Accounts Receivable         | 1,413,729,183.3        | 1,407,986,773.6        | 1,405,316,344.0        | 1,398,836,682.8        | 1,412,465,219.4        | 1,436,086,071.3        | 1,448,757,028.1        | 1,455,616,166.8        | 1,467,934,263.7        |
| Nº of Days                  | 148.0                  | 147.0                  | 147.0                  | 147.0                  | 147.0                  | 147.0                  | 147.0                  | 147.0                  | 147.0                  |
| Inventories                 | 121,322,160.7          | 134,093,978.4          | 133,839,651.8          | 133,222,541.2          | 134,520,497.1          | 136,770,102.0          | 137,976,859.8          | 138,630,111.1          | 139,803,263.2          |
| Nº of Days                  | 12.7                   | 14.0                   | 14.0                   | 14.0                   | 14.0                   | 14.0                   | 14.0                   | 14.0                   | 14.0                   |
| Taxes Receivable            | 109,466,791.1          | 109,763,796.6          | 109,555,615.3          | 109,050,474.0          | 110,112,927.1          | 111,954,360.9          | 112,942,163.0          | 113,476,887.6          | 114,437,181.4          |
| Nº of Days                  | 11.5                   | 11.5                   | 11.5                   | 11.5                   | 11.5                   | 11.5                   | 11.5                   | 11.5                   | 11.5                   |
| Prepaid Expenses            | 114,454,709.6          | 153,250,261.1          | 152,959,602.1          | 152,254,332.8          | 153,737,711.0          | 156,308,688.0          | 157,687,839.8          | 158,434,412.7          | 159,775,158.0          |
| Nº of Days                  | 12.0                   | 16.0                   | 16.0                   | 16.0                   | 16.0                   | 16.0                   | 16.0                   | 16.0                   | 16.0                   |
| Judicial deposits           | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          | - 1,406,615.3          |
| Other Current Assets        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        | - 131,571,750.1        |
| <b>Total</b>                | <b>1,951,810,862.5</b> | <b>1,960,630,477.4</b> | <b>1,936,957,222.7</b> | <b>1,930,037,713.0</b> | <b>1,939,387,515.3</b> | <b>1,955,548,129.1</b> | <b>1,970,041,752.1</b> | <b>1,987,058,368.6</b> | <b>2,005,226,209.7</b> |
| Accounts Payable            | 626,624,333.3          | 564,029,222.2          | 557,830,445.6          | 556,018,591.0          | 558,466,811.0          | 562,698,423.3          | 566,493,538.6          | 570,949,292.8          | 575,706,491.9          |
| Nº of Days                  | 105.3                  | 95.0                   | 95.0                   | 95.0                   | 95.0                   | 95.0                   | 95.0                   | 95.0                   | 95.0                   |
| Accrued Expenses            | 780,180,784.7          | 831,200,959.0          | 822,065,919.8          | 819,395,818.3          | 823,003,721.5          | 829,239,781.7          | 834,832,583.2          | 841,398,957.8          | 848,409,567.1          |
| Nº of Days                  | 131.1                  | 140.0                  | 140.0                  | 140.0                  | 140.0                  | 140.0                  | 140.0                  | 140.0                  | 140.0                  |
| Deferred Income             | 61,239,641.6           | 61,111,866.1           | 60,440,236.4           | 60,243,924.2           | 60,509,185.8           | 60,967,675.7           | 61,378,871.8           | 61,861,647.2           | 62,377,083.8           |
| Nº of Days                  | 10.3                   | 10.3                   | 10.3                   | 10.3                   | 10.3                   | 10.3                   | 10.3                   | 10.3                   | 10.3                   |
| Taxes Payable               | 364,740,515.0          | 385,914,731.0          | 381,673,462.8          | 380,433,772.8          | 382,108,870.7          | 385,004,184.3          | 387,600,842.2          | 390,649,516.1          | 393,904,441.9          |
| Nº of Days                  | 61.3                   | 65.0                   | 65.0                   | 65.0                   | 65.0                   | 65.0                   | 65.0                   | 65.0                   | 65.0                   |
| Provisions                  | 312,434,256.8          | 311,782,368.0          | 308,355,827.0          | 307,354,275.6          | 308,707,595.2          | 311,046,733.0          | 313,144,585.4          | 315,607,623.7          | 318,237,293.9          |
| Nº of Days                  | 52.5                   | 52.5                   | 52.5                   | 52.5                   | 52.5                   | 52.5                   | 52.5                   | 52.5                   | 52.5                   |
| Other Current Liabilities   | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        | - 193,408,668.9        |
| <b>Working Capital</b>      | <b>- 325,816,383.1</b> | <b>- 288,514,033.1</b> | <b>- 268,264,375.0</b> | <b>- 269,652,047.6</b> | <b>- 261,529,526.1</b> | <b>- 247,407,272.3</b> | <b>- 245,656,226.8</b> | <b>- 253,879,155.9</b> | <b>- 256,254,708.8</b> |
| <b>NWC</b>                  | <b>225,487,213.9</b>   | <b>37,302,350.0</b>    | <b>20,249,658.2</b>    | <b>1,387,672.6</b>     | <b>8,122,521.5</b>     | <b>14,122,253.8</b>    | <b>1,751,045.5</b>     | <b>8,222,929.1</b>     | <b>2,375,553.0</b>     |

## Appendix 29 – PT's Total-OI Quarterly NWC Map

### Working Capital of Total-Oi

| €                         | Q1 2012                 | Q2 2012                 | Q3 2012                 | Q4 2012                 |
|---------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Total</b>              | <b>1,532,428,061.02</b> | <b>1,479,300,676.22</b> | <b>1,648,210,998.89</b> | <b>1,625,994,479.34</b> |
| Accounts Receivable       | 1,274,823,172.14        | 1,260,770,708.57        | 1,431,585,139.48        | 1,413,729,183.31        |
| <i>Nº of Days</i>         | 123.73                  | 129.63                  | 148.00                  | 148.00                  |
| Inventories               | 123,239,285.32          | 123,523,630.56          | 122,854,507.40          | 121,322,160.75          |
| <i>Nº of Days</i>         | 11.96                   | 12.70                   | 12.70                   | 12.70                   |
| Taxes Receivable          | 112,721,363.37          | 111,453,137.52          | 110,849,399.81          | 109,466,791.14          |
| <i>Nº of Days</i>         | 10.94                   | 11.46                   | 11.46                   | 11.46                   |
| Prepaid Expenses          | 145,792,700.00          | 116,531,565.00          | 115,900,317.62          | 114,454,709.58          |
| <i>Nº of Days</i>         | 14.15                   | 11.98                   | 11.98                   | 11.98                   |
| Judicial deposits         | 12,307,350.94           | - 1,406,615.35          | - 1,406,615.35          | - 1,406,615.35          |
| Other Current Assets      | - 136,455,810.75        | - 131,571,750.08        | - 131,571,750.08        | - 131,571,750.08        |
| <b>Total</b>              | <b>2,089,523,706.83</b> | <b>1,926,728,568.03</b> | <b>1,942,894,846.43</b> | <b>1,951,810,862.48</b> |
| Accounts Payable          | 526,629,223.17          | 619,297,728.32          | 624,019,941.25          | 626,624,333.27          |
| <i>Nº of Days</i>         | 81.33                   | 105.32                  | 105.32                  | 105.32                  |
| Accrued Expenses          | 880,785,844.00          | 771,058,770.00          | 776,938,177.48          | 780,180,784.73          |
| <i>Nº of Days</i>         | 136.02                  | 131.13                  | 131.13                  | 131.13                  |
| Deferred Income           | 7,411,492.65            | 60,523,616.65           | 60,985,115.85           | 61,239,641.61           |
| <i>Nº of Days</i>         | 1.14                    | 10.29                   | 10.29                   | 10.29                   |
| Taxes Payable             | 414,423,019.00          | 360,475,903.00          | 363,224,571.20          | 364,740,515.02          |
| <i>Nº of Days</i>         | 64.00                   | 61.31                   | 61.31                   | 61.31                   |
| Provisions                | 143,785,397.02          | 308,781,219.00          | 311,135,709.58          | 312,434,256.79          |
| <i>Nº of Days</i>         | 22.20                   | 52.51                   | 52.51                   | 52.51                   |
| Other Current Liabilities | 116,488,730.98          | - 193,408,668.94        | - 193,408,668.94        | - 193,408,668.94        |
| <b>Working Capital</b>    | <b>- 557,095,645.81</b> | <b>- 447,427,891.81</b> | <b>- 294,683,847.54</b> | <b>- 325,816,383.14</b> |
| <b>NWC</b>                | <b>- 5,792,048.76</b>   | <b>109,667,754.00</b>   | <b>152,744,044.27</b>   | <b>- 31,132,535.60</b>  |

## Appendix 30 – PT's Domestic Operations Quarterly FCFF

### Domestic Operations FCFF Details

| €                      | Q1 2012              | Q2 2012             | Q3 2012            | Q4 2012              |
|------------------------|----------------------|---------------------|--------------------|----------------------|
| EBITDA                 | 307,700,000.0        | 307,300,000.0       | 302,832,530.8      | 289,345,179.0        |
| Capex                  | 114,895,528.0        | 123,500,000.0       | 155,802,236.0      | 155,802,236.0        |
| Taxes                  | 18,816,987.4         | 32,285,133.6        | 11,590,200.7       | 7,989,508.4          |
| NWC                    | - 5,173,333.5        | 97,376,856.1        | 135,625,416.6      | - 27,643,389.5       |
| Extraordinary Payments | -                    | -                   | -                  | 454,000,000.0        |
| <b>FCFF</b>            | <b>179,160,818.2</b> | <b>54,138,010.3</b> | <b>- 185,322.4</b> | <b>153,196,824.1</b> |