

**DIVESTURE/ACQUISITION ANALYSIS:
PT/TELEFÓNICA/VIVO CASE STUDY**

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“Wise executives divest business so that they can create new ones and expand existing ones.”

Dranikoff and Koller (2002:82)

“Mergers and acquisitions make sense because they increase the value of the shares held in the target company”.

Michael C. Jensen (1984)

“(…) While acquisitions are marks of strong, growth-focused executives, divestures signal weakness and even failure”.

Dranikoff, L. and Tim Koller (2002:77)

“There was little evidence on the central issues of corporate finance. Now we are overwhelmed with results, mostly from event studies”.

Fama (1991:1600)

Abstract

The main objective of this master thesis is to evaluate the impact of events/announcements in the market capitalization of companies involved and to test market efficiency.

Acquisitions, mergers and divestures are strategies followed by companies in order to adjust to economic and political changes and explore opportunities to develop capabilities in new environments.

In this study it is analyzed the impact of selling the stake held in Vivo by PT to Telefónica in the market capitalization of the both companies. Additionally it was applied the event study methodology suggested by Mackinlay et al. (1997). This methodology can be used to measure the impact of a specific event on the market capitalization of companies with the purpose to test market efficiency in capital markets.

In this study were detected abnormal returns in every events in analysis, with special focus on event 2 and 3, that correspond respectively, to the day 1st June 2010 (day in which Telefónica launched the second offer in order to acquire Vivo, for the amount of €6.5 bn) and the day 30th June 2010 (day when the General Board Meeting occurred and the Portuguese government used the golden share in order to block the operation).

Keywords: Divesture; Joint-Venture; Golden-share; Event Studies; ‘Winner’s Curse’.

JEL Classification: G14, G34

Sumário Executivo

O principal objectivo desta tese de mestrado é avaliar o impacto dos eventos/anúncios na capitalização bolsista das empresas de forma a testar a eficiência dos mercados.

As aquisições, fusões e desinvestimentos são estratégias levadas a cabo pelas empresas de forma a ajustarem-se às mudanças económicas e políticas para assim desenvolverem novas capacidades que lhes permitam aproveitar as oportunidades que existem na envolvente.

Neste estudo analisa-se o impacto que a venda da participação da PT na Vivo, á Telefónica, teve na capitalização bolsista de ambas as empresas. Adicionalmente, é também aplicada a metodologia do estudo de eventos sugerida por Mackinlay et al. (1997). Esta metodologia tem como objectivo medir o impacto de um evento/anúncio específico na capitalização bolsista das empresas, estando desta forma a testar a eficiência dos mercados de capitais.

Neste estudo detectaram-se rentabilidades anómalas em todos os eventos em análise, com especial incidência no evento 2 e 3, que correspondem respectivamente, ao dia 1 de Junho de 2010 (dia em que a Telefónica lançou a segunda oferta com o objectivo de adquirir a participação detida pela PT na Vivo pelo montante de €6.5 bn) e ao dia 30 de Junho de 2010 (dia em que ocorreu a Assembleia Geral de Accionistas da PT em que foi usada a Golden Share por parte do Governo Português de forma a bloquear a operação).

Palavras-Chave: Desinvestimentos; Joint-Venture; Golden-share; Estudo de Eventos; ‘Maldição do Vencedor’.

Classificação JEL: G14, G34

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Abbreviations

Telecommunications industry terms

ANACOM – Portuguese national telecommunications authority

CMT – Commission of telecommunications market of Spain

ANATEL – Brazilian national telecommunications authority

TLP – Lisbon and Porto Telephones

CTT– Portuguese Post Office Entity

TDP – Portugal Teledifusora

CADE – Administrative Council for Economic Defence

Technologies

3D – Three dimensional

IPTV – Internet Protocol Television

FTTH – Fiber to the Home

DTH – Direct to Home

ADSL – Asymmetric Digital Subscriber Line

CDMA – Code Division Multiple Access

3G – Third Generation Mobile technology

GSM/EDGE – Enhanced Data Rates for GSM Evolution

GSM – Global System for Mobile Communications

3G HSUPA – High Speed Uplink Packet Access

CDMA 1xEVDO – Evolution-Data Optimized

TDMA – Time Division Multiple Access

WCDMA – Wideband Code Division Multiple Access

HSDPA – High Speed Downlink Packet Access

3.5G – Third and half Generation Mobile technology

AMPS – Advanced Mobile Phone System

4G – Fourth Generation Mobile technology

Financial Terms

SGPS – Holding Company

EBITDA – Earnings before Interests, Taxes, Depreciations and Amortizations

R\$ – Monetary Units – Brazilian Real

AAR – Aggregated Abnormal Returns

CAAR – Cumulative Agregated Abnormal Returns

I. Introduction

This master thesis intends identifying and measure if the divesture and acquisition made by PT and Telefónica, respectively, caused abnormal share's performance of both companies during this operation.

In order to test market efficiency and to identify the most relevant events with impact in the companies and indexes, the event studies analysis is applied under several perspectives: Market Model, Market adjusted returns and Constant mean adjusted returns.

That analysis is presented considering that both companies have an equal weight (Equally Weight), and also considering the 'Market Value' (Market Value Weighted).

II. Literature review

i. Divestures

Acquisitions, mergers and divestures are strategies followed by companies in order to adjust to economic and political changes, to explore opportunities and to develop capabilities in new environments.

The two major types of selloffs are: Spinoffs and Divestures.

The main reasons for divestures are: to abandon core business because the opportunities changed; the need to change strategies in order to adapt the company to environment changes; when a company requires additional capital in order to make investments and the firm is unable to raise it; government requirements; the existence of low profit margin products (dogs in the BCG matrix) in the company product portfolio and divestures could be used to finance other investments and take positions in other companies.

The consequences of no divesture are: wasting investment funds that could be used to finance new investments and create value to shareholders; wasting management time; holding a stagnant portfolio that may leave the company paralyzed and postponing decisions. For all the reasons referred, “Divesture is a powerful way to free up resources (Dranikoff, L. and Tim Koller, 2002)”.

“Weston et al. (2004) refer that “Divesture involves the sale of a portion of the firm to an outside third party””. The divesture for the ‘seller’ is the transfer of business assets to a more efficient user and for the ‘buyer’ is an expansion opportunity.

The motives for voluntary divestures are: sell unprofitable ventures; become less diversified companies and to generate cash.

“According with the authors of the study [Alexander, Benson and Kampmeyer, (1984)], “(...) voluntary selloffs announcements have a slightly positive price impact and the result is a positive net present value decisions.””

“Jain (1985) identifies the reasons for selling firms, being those: unforeseen circumstances; selloff of a partial merger; company desire to specialize in a small number of businesses and the desire to transfer wealth from bondholders to equity holders.” In this problem, buyers are investors in a new project and will only be able to invest in a positive net present value project. Jain (1985) concludes that the main reason for the divesture of a company is the need of liquidity and to generate cash rapidly.

“Miles and Rosenfeld (1983) suggested three ways in which spinoffs can enhance firm value: elimination of negative synergies; expanding opportunities providing more flexibility to investors in the choice between dividends and capital gains and transfer wealth from bondholders to shareholders.” In this study, the authors concluded that spinoff announcements result in positive share price effects.

ii. Joint-Ventures

Mergers and Acquisitions, Joint Ventures and Tender Offers are expansion strategies that have an important role in the firm's growth.

Joint Venture is a relationship between two or more companies that combine assets for a specific business purpose that represents only a small fraction of both companies businesses. Joint ventures could have duration of ten to fifteen years or less.

Joint Venture participants exist as separate firms, thus a joint venture represents the creation of a new business, and in some cases, are a consequence of large capital intensive projects that require expensive technology that companies alone cannot access.

Also Joint Ventures are a temporary alliance in which the parties combine capabilities and skills. In some cases are informal contracts involving only the exchange of ideas or information.

When Joint Venture contract is accepted by the partners, the governance structure, the decision making process and society control must be defined and adjusted to achieve the partner's wishes, because the success and achievement of joint ventures goals depends on the level of cooperation and trust between partners.

The main characteristics of Joint Ventures are: the contribution of both companies with cash, property, knowledge, skills and technology; existence of mutual control and management; the expectation of profit; the exploitation of new investment opportunities cross borders; limitation of inherent risks and combination of resources.

The reasons for the existence of Joint Ventures are: a way to access raw materials and technologies; to overcome trade barriers and achieve economies of scale; to share investment expenses; to achieve greater learning experience; to share risk and information; to learn about new industries and business; to expand geographical market participations and to share resources.

In international Joint Ventures since there are different cultural systems in different countries, it is harder for a company to achieve the cooperation level required. This type of joint ventures is a way to reduce the expansion risk in foreign environments, to transfer technology, to develop capabilities and to access resources.

Joint Venture is a strategy that could be used as a way to learn if the partners have complementary production activity and assets in order to prepare a possible M&A strategy in the future.

The main reasons for the failure of joint ventures are: an inadequate planning of the operation and the difficulties of sharing knowledge, control and decisions.

iii. Golden Share

“Golden shares are special rights or powers that vested in the State or in other public entities granting certain control in privatized companies (Ivan Kuznetsov, 2005)”.

Those special rights that first appeared in United Kingdom by the 1980's, are owned by the State and the main goal was the protection of state's strategic interests and maintenance of those rights, conferring to the state powers to define constraints on privatized companies. Thus golden shares are very common in privatized companies in which governments is a minority shareholder and may have different characteristics depending on the countries and industries.

Golden shares confer the following special rights to State: to appoint company directors and board members; to limit the foreign director's representation in the board; to veto decisions; to authorize decisions in case of mergers, takeovers or other restructuring strategies and to restrict acquisitions or changes in the company shareholding structure. The rights inherent to golden shares can be temporary or permanent and in some cases may remain even when the state sells its participation.

The reasons for the maintenance of golden shares are: to protect some companies that have financial power and influence in the economy; to safeguard the State interests and to protect companies against hostile takeovers.

The most significant number of golden shares detained by the state or other state owned entities is in the Finance/Real Estate industry and the countries with more golden shares are France and United Kingdom.¹

¹ See Appendix I – Golden shares distributed by country and Appendix II – Golden shares distributed by industry

According with the European Court of Justice, some of the golden shares analyzed in European Union member states violated the European Court law.

iv. Event Studies

In finance, Event Studies can be used to measure the impact of a specific event on the firm value, mostly M&A, earnings, announcements, issues of new debt or equity. Event studies serve the purpose to test market efficiency in capital markets and to test the behavior of prices after the announced events.

In order to apply this methodology, it is required to use security prices observed over a relatively short time period. The most common application of event studies is to analyze the impact that an event has on the price of a particular security, in the majority of the cases equity.

“The event studies has in general form, two applications: (1) analyze if the market captures the announced information in an efficient way; and (2) measure the impact of an event in the profitability and in the wealth of shareholders. (Binder,1998)”.

“In order to measure the abnormal profitability, there are three types of announcements: (1) Bad News, when the price changes of an asset is negative in the event day (day 0); (2) Good News, when the price change of an asset is positive in the event day (day 0); and (3) Without News, when there are no changes in the price of an asset and its profitability is zero (Christie, Corwin and Harris, 2002).”

The initial task to perform in event studies analysis is to define the period over which the security prices of firms are involved in the event are going to be analyzed. Then, has to be created an event window as large as the specific period of interest and it is necessary to determine the criteria for the selection of the company given the data available.

“Mackinlay (1997) define and classify/divide the event duration as ‘pre-event window’; ‘event window’ and ‘post-event window’, for the period before, during and after the event.” The ‘pre-event window’ and the ‘post-event widow’ usually has a duration of 20 trading days each.

For the definition of the event study window using daily data, the model parameters could be estimated over 120 days prior to the event. The usual, using daily stock returns is to use 20 pre-event days, the event day and then 20 post-event days. For each

important date defined, it must be used 250 trading day's period to the event window for the parameters estimation (α and β for the market model).

“The abnormal return is the actual ex-post return of the security over the event window minus the normal return of the firm over the event window. The normal return is defined as the expected return without conditioning on the event taking place (A. Craig Mackinlay, 1997)”.

There are several models for measuring the normal performance: Market Model, Market adjusted returns and Constant Mean adjusted returns.

The Market model relates the return of any security with the return of the market portfolio. This model follows the assumption of joint normality of assets returns and is defined by the formula:

$$R_{i\tau} = \alpha_i + \beta_i R_{m\tau} + \varepsilon_{i\tau} \quad (1)$$

Where:

$R_{i\tau}$ – is the rate of return generated by the security i in the period τ

$R_{m\tau}$ – is the rate of return generated by the market portfolio in the period τ

α_i – is a constant term

β_i – is the Beta coefficient of a linear regression of security i in relation to the market rate of return

$\varepsilon_{i\tau}$ – is the residual term (By assumption: $E(\varepsilon_{i\tau}) = 0$)

The parameters of the model are: α and β can be estimated using Ordinary Least Squares methodology:

$$\widehat{\beta}_i = \frac{\sum_{\tau=T_0+1}^{T_1} (R_{i\tau} - \widehat{\mu}_i)(R_{m\tau} - \widehat{\mu}_m)}{\sum_{\tau=T_0+1}^{T_1} (R_{m\tau} - \widehat{\mu}_m)^2} \quad (2)$$

$$\widehat{\alpha}_i = \widehat{\mu}_i - \widehat{\beta}_i \widehat{\mu}_m \quad (3)$$

The Market-adjusted returns model, adjusts the returns of the security by the market returns in the period τ and is defined by the formula:

$$AR_{i\tau} = R_{i\tau} - R_{m\tau} \quad (4)$$

Where:

$R_{i\tau}$ – is the daily returns generated by security i in period τ

$R_{m\tau}$ – is the rate of return generated by the market portfolio in the period τ

By assumption: $\alpha = 0$ and $\beta = 1$.

The Constant mean adjusted returns model, adjusts the returns by the mean of returns in the period τ and is defined by the formula:

$$AR_{i\tau} = R_{i\tau} - \bar{R}_{i\tau} \quad (5)$$

Where:

$R_{i\tau}$ – is the rate of return generated by the security i in the period τ

$\bar{R}_{i\tau}$ – is the arithmetic mean of the daily returns generated by security i in the period τ

The usual technique adopted after the computation of the returns is the aggregation of results during the event window, of the values associated to the securities with the objective of knowing about the event in analysis.

The daily returns are aggregated through the computation of their arithmetic mean (AAR_τ):

$$AAR_\tau = \frac{1}{N} \sum_{t=1}^{t2} AAR_\tau \quad (6)$$

Where:

N – is the number of observations

AAR_τ – is the aggregated abnormal returns

Then the cumulative abnormal returns correspond to the aggregation of AAR_τ of the sample. Then for the event window, the cumulative aggregated abnormal return is given by the formula:

$$CAAR_\tau = \sum_{t=1}^{t2} AAR_\tau \quad (7)$$

Then it is necessary to compute its variance, using the formulas:

$$Var(AAR_\tau) = \frac{1}{N^2} \sum_{t=1}^N \sigma^2_{\varepsilon\tau} \quad (8)$$

$$Var(CAAR(t_1, t_2)) = \sum_{t=1}^{t2} Var(AAR_\tau) \quad (9)$$

Finally and in order to test the hypothesis associated to the AAR and CAAR previously presented, it is necessary to compute the following statistics:

$$\theta_1 = \frac{AAR_{\tau}}{\sqrt{Var(AAR_{\tau})}} \quad (10)$$

$$\theta_2 = \frac{CAAR(t_1, t_2)}{\sqrt{Var(CAAR(t_1, t_2))}} \quad (11)$$

v. Winner's Curse

“In the winner's curse, issuers must compensate uninformed investors against adverse allocation bias through underpricing since informed investors participate only when an offering is underpriced (Thaler, 1988)”.

Winner's curse is a concept first developed by Capen, Clapp and Campbell in 1971. This concept appears, because in auctions there is a lack of information about the bidding price and of existing offers (higher and lower than the asset real price).

“According with Hansen (2001), “(...) the winner's curse is a lack of knowledge and information about the target value of the company.””

In this context, with the hypothesis of a merger or acquisition, the bidders face the winner's curse problem. “The bidder, or the “winner” can be said to be “cursed” in one of two ways: when the winning bid exceeds the value of the tract, so the firm lose money or when the value of the tract is less than the experts estimate so the winning company is disappointed (Richard H. Thaler, 1988)”.

We can say that the well informed investors, will only buy shares when the price of the offer is equal or below the share's fair value and the worst informed investors, will receive a large amount of shares above the fair value because they are the only ones to buy those shares when the price of the offer is above the share's fair value.

Theory Background

III. Telecommunications industry overview and growth

i. Portugal

According to Anacom, the electronic communications such as wireline, mobile and internet, grew 6.2% per year and reached 21.7 million accesses in 2009.

The same source reveals that wireline communications revenue that represented 90% of total revenues in 2000 decreased to 63% in 2009, representing an average decrease of 1.8% per year and represents 12% of the total accesses.

Regarding mobile communications, with the implementation of the 3rd Generation Mobile technology, mobile operators provide several services, such as: Internet and TV. Concerning payment plans, 72.8% of costumers use pre-paid plans and mobile telecommunications services represent 64% of the total accesses.

Regarding cable TV, this service grew 5.6% while satellite TV grew 19% in annual average since 2000, representing 10% of the customers and reaching 2.5 million customers in 2009. The new technology – HDTV – growth 10% in 2009 and TV services represents 6% of total accesses.

Regarding Internet, the mobile broadband internet service reached 3.8 million users in 2009, according to the same source and represents 18% of the total accesses.

The multiple play packages offered by the operators, in which they offer multiple services, such as: Internet, TV and wireline telecommunications grew 140% in 2009. The ‘fiber optics’ network grew and reached 1.2 million accesses in 2009 (considering all the operators in the Portuguese market).

ii. Spain

According to CMT, the total accesses of wireline communications decreased 8.3% in 2009.

According to the same source, the total accesses of mobile communications increased 4.1% in 2009.

Concerning the total accesses of broadband internet services provided, they reached 2.17 million clients in Spain, corresponding to an increase of 1.8% while revenues increased 2.2%.

According to CMT, the total accesses of satellite TV increased 30.1% and cable TV increased 7.9% in 2009.

iii. Brazil

According to Anatel, the mobile communications in 2009 reached 173.9 million customers in Brazil, representing an increase of 15.47%. Regarding the accesses, about 90.5 % of the persons have access to mobile communications, representing an increase of 15.88% per year.

IV. History of the companies involved in the operation

i. Portugal Telecom

In 1968 TLP were created, replacing CTT as telecommunication services provider. Later on, in 1970, CTT became a state owned company and in 1989, TLP also becomes a state owned company.

In 1992, was created the company *Comunicações Nacionais, SGPS, SA.*, in order to manage the State participations.

In 1994, a national telecommunications operator was created with the merger of the State holdings: Telecom Portugal, TLP and TDP. After this merger, PT was created and then several privatizations phases took place:

- 1st phase occur in 1st June, 1995 and the State sold the equivalent of 27.26% of PT's capital to the private sector;
- 2nd phase occur in June, 1996, and the State sold the equivalent of 21.74% of PT's capital. In the end of the 2nd phase, PT sold 49% of its capital;
- 3rd phase occur in 1997, when was approved a law that limited the State participations to hold less than 51% in public companies. In October of the same year, 26% of the shares were transferred to private investors;
- 4th phase occurred in 1999, and the State sold 13.5% of PT's capital. In this phase, PT also needed to increase its capital from 950 to 1,045 mn€. In the end of 4th phase, the state had only on his possession 11% of PT's capital.
- 5th phase occur in December 2000 and PT's capital was entirely private except 500 Class A shares, which were held by the State. Those shares were denominated Golden Share, and give the State the right to make strategic decisions and block important decisions. On 12th December, 2000, PT changed its social denomination to Portugal Telecom SGPS, SA.

PT is a global telecommunications operator and leads the telecommunication services provided in Portugal. The company is listed in the Euronext Lisbon Stock Exchange and in the New York Stock Exchange and has 896.512.500 shares outstanding with a face value of €1. The CEO of PT is Zeinal Bava and the Chairman is Henrique Granadeiro.

PT associated companies are:

- Wireline: PT Communications, PT Prime and PT Corporate;
- Mobile: TMN, PT wi-fi;
- Pay TV: Meo;
- Internet: Meo, Telepac and Sapo.
- Communications: PT SI;
- R&D: PT Innovation.

PT has a well diversified business portfolio and the reasons for its success on this industry were the quality and innovation of services provided.

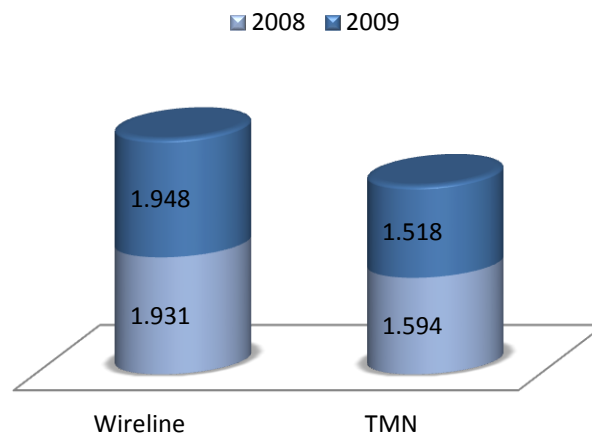
The services provided by PT are: wireline, mobile voice, data, multimedia communication services, broadband internet access, corporate solutions, cable TV, local and international telephone services, internet communications and internet investments.

Meo brand allows customers to have a triple play package with TV, internet and wireline telephone, while offering new services, such as: real video on demand, catch up TV, interactive TV, TV applications and multi-screen. In the last year, PT introduced 'fiber optics' and '3D' technologies in the market and is one of the most advanced cases in Europe. The other technologies used are: IPTV/FTTH and IPTV/ADSL 2 + DTH and PT is a world expertise in IPTV technology.

In 2010, Meo costumers increased and reached 800 thousands and the ADSL service growth was higher, reaching 54 thousand customers.

In the pay-TV segment, Meo has a 27% market share and the market leader is Zon with 60% market share.

In the mobile telecommunications, PT owns TMN that provides mobile communications, voice, text and internet data and also provides access to several applications like: games, wallpapers, music downloads, social networks access and mobile TV. TMN is the Portuguese mobile telecommunications operator with the biggest 3G technology coverage. The investments required for the 4G mobile telecommunications has being initiated and this technology will be fully implemented in Portugal until 2011.

Graphic 1 – PT revenues in 2009 in million €

Source: PT, Financial Report 2009

In the domestic market, wireline communications revenues increased by 0.8% and the mobile network (TMN) decreased by 4.8% and reached 7.2 million customers in 2009. With all the services provided, PT is a national reference and contributed to the development of the information society and plays the leading role of Portuguese Telecommunications history.

The major PT shareholders are: Capital Research (10.9%), Espirito Santo Group (10%), CGD Group (7.33%) and RS Holding (6.77%)².

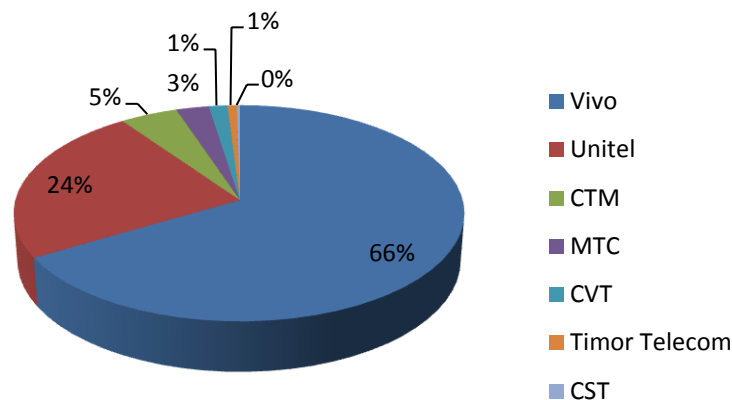
Today, PT is the largest Portuguese company with more international projection and is present in several countries such as: Cape Verde, Mozambique, Timor, Angola, Kenya, China, S.Tome & Principe, Namibia and Brazil. PT has more than 83 million customers and is present in 9 countries³. Regarding the international position, the most significant participations are in CST (S.Tome & Principe) and Vivo (Brazil), representing more than 50% stake.

Besides Vivo participation, PT has other Brazilian investments in Dedic and Mobitel companies.

² See Appendix III – PT Shareholders

³ See Appendix IV– PT participations worldwide and Appendix V – PT international investments

Graphic 2 – PT 2009 international revenues in million €



Source: PT, Financial Report 2009

As we can see in the graphic presented, the most significant part of PT's international revenues came from Vivo - Brazil (66%) and Unitel - Angola (24%) and those companies represented together, 90% of PT's international revenues in 2009.

ii. Telefónica

Telefónica was constituted on 19th April, 1924 in Madrid, and was denominated *Compañía Telefónica Nacional de España*, and it was the market leader in Spain until the 90's.

In January 1999, the company changed its social denomination to *Telefónica de España*, when the Spanish government decided to sell its participation and end with the telecommunications monopoly. In 2003, the company joined PT, Telesp Celular and Global Telecom with the purpose of uniting all the mobile companies in Brazil.

In 2005, the company bought Cesky Telecom, telecommunications market leader in the Czech Republic and also bought Eurotel.

Nowadays, Telefonica is the 4th player in the world telecommunications market whose leaded by China Telecom, AT&T and Vodafone.

The CEO of Telefónica is Júlio César Alierta and the major shareholders are: BBVA (5.543%), La caixa (5.170%) and Blackrock Inc (3.883%). There are 4.563.996.485 shares outstanding with a face value of €1.

Telefónica provides telecommunication services such as: wireline, mobile telephone and broadband services. Telefónica's group is constituted by Telefónica Spain, Telefónica Latin America and Telefónica Europe⁴.

Telefónica owns *Telefónica de España*, the largest operator of wireline and ADSL and *Telefónica Moviles* is the largest mobile operator in Spain, with a market value of \$120.5 bn (in September 2009). Telefónica is also the owner of *Terra Networks* and *Telefónica Publicidad e Información* that is a yellow pages service provider in Spain.

Telefónica is the world's largest company in this industry regarding the market capitalization and is quoted in the IBEX 35 index. Telefónica's capital is 100% private and the company has more than 60% of its business outside Spain.

Regarding the internationalization process, besides Spain, the group operates in 25 countries from Latin America and Europe.

In Argentina, Telefónica owns the largest wireline telecommunications operator since 1990 and the mobile communications are provided by Movistar.

In Brazil, Telefónica has a Joint Venture with PT and splits the control of Vivo, a mobile telecommunications provider and also controls the company TIM, which provides wireline and mobile telecommunications.

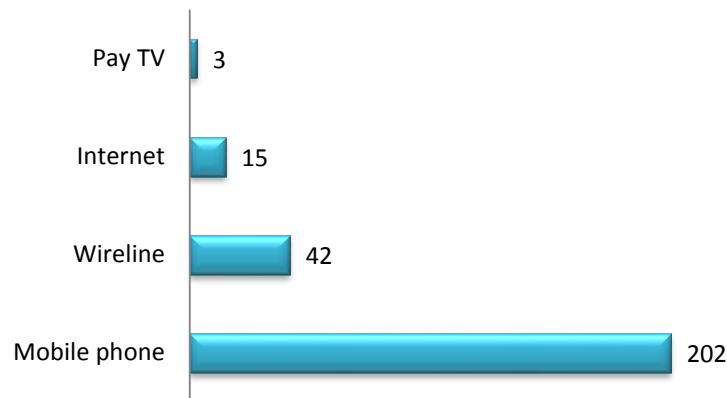
In Morocco, Telefónica has a participation in Méditel that is the second largest telecommunications provider in the country and in China, the company owns 5% of China Netcom.

Concerning the number of costumers, Telefónica has 47 million customers in Spain and has 172.3 million customers in Latin America (Brazil, Argentina, Chile, Peru, Ecuador, El Salvador, Colombia, Guatemala, Mexico, Nicaragua, Panama, Puerto Rico, Uruguay and Venezuela).

In Europe, Telefónica has 53.9 million customers in the countries: United Kingdom, Ireland, Germany, Czech Republic and Slovakia. The group has 250,000 employees and 273 million customers worldwide⁵.

⁴ See Appendix VI – Constituents of Telefónica Spain, Appendix VII – Constituents of Telefónica Europe, Appendix VIII – Constituents of Telefónica Latin America and Appendix IX – Other participations of Telefónica Group

⁵ See Appendix X – Worldwide services provided by Telefónica Group

Graphic 3 – Telefónica global services provided – in million accesses

Source: Telefónica, Financial Report 2009

As we can see in the graphic above, the most important service provided by Telefónica's Group worldwide is the mobile telecommunications, representing 202 million accesses, followed by the wireline communications with 42 million accesses.

iii. Vivo

In 1997, PT and Telefónica celebrated an agreement in order to explore and evaluate together the possibility of beginning an international expansion in Latin America.

In January 2001, PT, *PT Móveis SGPS, SA.*, Telefónica and *Telefónica Móviles, SA.* created a Joint Venture with equal participations with the purpose of creating a mobile telecommunications provider and a market leader in Brazil.

With the Joint Venture, both companies could create value through new acquisitions and benefit from synergy effects, since they already knew the Brazilian market and have some participation in the mobile industry. In the same year, the holding company was created in Holland and called Brasilcel N.V.

Later on, in October, 2002, both companies decided to transfer assets - that the companies had in the mobile telecommunications industry in Brasil – to Brasilcel.

In December of the same year, from this partnership born a new mobile telecommunications provider in Brazil, denominated Vivo, that began its activity in April, 2003.

Until 2006, Brasilcel acquired other companies and decided to concentrate all the social participations into an holding, denominated Vivo Participations, SA⁶.

Vivo is the South America largest mobile operator and the 40th largest mobile operator in the world. Vivo provides mobile, data and internet services to more than 2.9 thousand municipals and has 56 million customers in Brasil.

In the first semester of 2010, concerning the number of customers, Vivo grew 19.6% from 46.8 to 56 million customers and reached 30.2% market share in Brazil. Concerning the mobile internet, Vivo's market share is 40% representing 4.6 million accesses in Brazil. Vivo's revenues grew 9.8% in 2010, from R\$ 4 mn to R\$ 4.4 mn.

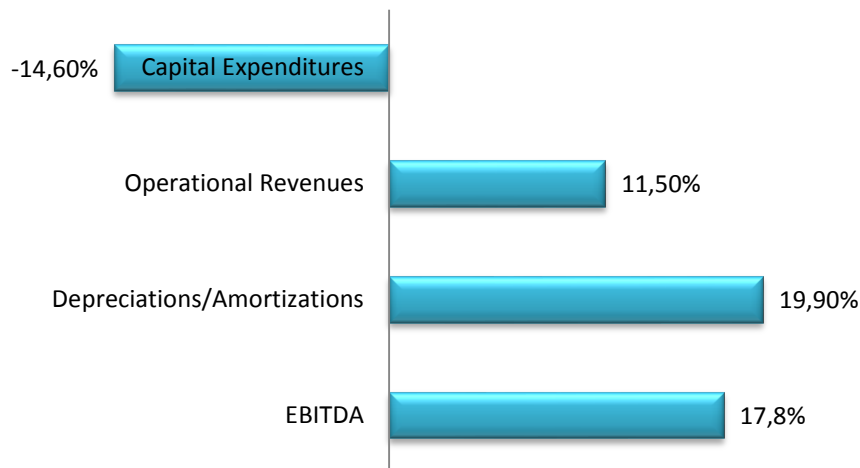
Vivo provides mobile telecommunication services with GSM and CDMA technologies and was the first Brazilian company providing CDMA EUDO and 3rd Generation telecommunications. GSM, 3G and 3.5G technologies accounted for 49 thousand customers until the first quarter of 2010.

The technologies used by Vivo are:

- CDMA – is a method to access telecommunication systems channels since 1998;
- 3G – is a technology used with the purpose of the evolution of the GSM/EDGE network, and is used since 2005;
- GSM/EDGE – used since 2006;
- GSM – used since 2007;
- 3G HSUPA – was launched on 11st September 2008 and allows the existence of TV mobile, mobile internet and video calls;
- CDMA 1X EVDO – this technology only allows data transmission;
- TDMA;
- WCDMA/HSPA – this technology is used in cell phones and Vivo provide this service in the whole country and has a national coverage of 89%;
- 3.5G – Vivo announced this project in June 2010 and aims to cover 1,461 municipalities by the end of 2010 and in the end of 2011 has the objective to reach 85% of the Brazilian population.

Vivo is the most valuable brand in this sector, owns 334 stores in Brazil and is the leader in 3G technology coverage.

⁶ See Appendix XI – Vivo shareholding structure before Telefónica acquisition

Graphic 4 – Evolution of Vivo financial indicators

Source: PT, Financial Report 2009

According to the graphic above, the operational revenues, depreciations and amortizations and Ebitda had a positive evolution in 2009 and the Capital expenditures decreased about 15% in 2009.

V. Objectives and conditions of the operation

On 6th May 2010, Telefónica made the initial offer to PT in order to acquire the 50% participation PT held in Brasilcel, the holding that controls 60% of Vivo's capital. Initially, the offer was €5.7 bn, and represented a premium of 150% over the market value of PT stake of Vivo. The board of directors decided to decline the offer in 10th May 2010. Since then, PT and Telefónica continued to negotiate in order to find the best solution for the acquisition of the 50% stake of PT in Brasilcel by Telefónica.

On 1st June 2010, Telefónica revised the initial offer and offered €6.5 bn for the 50% participation that PT held in Brasilcel and this offer expired on 30th June 2010.

There were two different alternatives in order to conclude this operation: the first one was Telefónica paying the total amount of €6.5 bn or paying 1/3 of that amount upfront and giving PT a put option over the shares of Brasilcel to be exercised during a period of three years. Besides the payment there were other conditions in this offer, such as: corporate governance issues; a call option over PT; obligation from PT to sell its stake in Dedic, SA. (Brazil); restrictions to direct competition in the Brazilian market through any Vivo subsidiary; restrictions to direct competition in the Iberian market; payment of Vivo dividends respecting to the year 2009 and the payment of fees pendent of Vivo.

Regarding the call option, if PT accepted the offer, Telefónica would offer a call option over PT, giving the right to purchase or to elect one or more third parties to purchase Telefónica's direct interest in PT, representing approximately 8.5% of its capital.

Concerning Dedic, S.A., no matter the alternative A or B chosen by PT, the total stake hold in Dedic of 87.5% has to be sold. Telefónica wanted to purchase this company because it is a call center that provides services in Brazil, especially to Vivo. After the date of acceptance of the offer, PT should give all the necessary information to Telefónica in order to perform due diligence including tax, legal, financial, operational, commercial, labor and technical.

If there was no agreement about the purchase price, until the end of the due diligence process, they would start an independent valuation process to be undertaken by international investment banks, in order to determine the fair value of the company.

Regarding this offer, PT and Telefónica must agree to continue agreements, arrangements and services provided between PT and Vivo for specified transition periods.

PT cannot, either directly or through any affiliate, compete with Vivo in the Brazilian market, in the wireline, mobile or internet access services. If PT competes with Vivo, any supervisory board director of Brasilcel nominated by PT must resign and PT had to exercise the put option in relation to any shares that have not been transferred to Telefónica.

On the other hand, if PT accepts the Offer, both companies should avoid investing, directly or indirectly in any project in the telecommunication business - including wireline, mobile, internet and television services - that can be considered in competition with the other in the Iberian market, starting on the date of acceptance of the Offer until 31st December 2011 or until the date of transfer of all remaining shares of Brasilcel to Telefónica.

Besides the dates of alternative A or B, the following amounts should be paid: Brasilcel should pay the amount of €52.8 mn to PT, corresponding to declared and unpaid Vivo dividends of R\$ 236.79 mn in respect of 2009 net income and an amount should be agreed between the companies that corresponds to the net settlement of payments due by each company in relation to Vivo management fees, pending expenses and other costs.

The conditions of each alternative were:

- **Alternative A**

Telefónica proposed to acquire shares free and clear from any liens, charges, encumbrances and third party rights for a purchase price of €6.5 bn and those would be payable in cash on the date of the acquisition of the shares, occurring no later than 60 days after the day of the acceptance of the offer.

PT had to sell the total amount of shares that it had in Brasilcel and all the directors must resign.

The call must be delivered on the date that the offer is accepted, in which case the price per share would be equivalent to the volume weighted average price of PT shares on the Euronext Lisbon Stock Exchange for the 30 trading days, or on the date following 2 months after Closing A, in which case the price per share would be equivalent to the volume weighted average price of Portugal Telecom's shares on the Euronext Lisbon Stock Exchange for the 60 day period to the date of delivery of the Call.

- **Alternative B**

Telefónica proposed to acquire 1/3 of shares and third party rights for a purchase price of €2.16 bn, the equivalent to 1/3 of €6.5 bn would be payable in cash on the date of the acquisition of 1/3 of the shares, occurring no later than 60 days after the day of the acceptance of the offer.

In this alternative, Telefónica would grant to PT a put option giving the right to sell all or part of the 2/3 of the 50% stake in Brasilcel during a period of three years from the date of the acceptance of the offer. In this case, PT and Telefónica must agree about the dividend distribution on a mechanism that allows PT to receive the interest in an efficient manner.

On the date of the acceptance of the offer, two of Brasilcel's Supervisory Directors and all of Brasilcel's Managing Directors and also all directors of subsidiaries nominated by PT must resign. If PT owns 10% or more of Brasilcel, it has the right to appoint two Supervisory Directors of Brasilcel and other directors would be appointed by Telefónica.

The call must be delivered corresponding to 1/3 of the PT shares on the date of the acceptance of the offer, in which case the price per share would be equivalent to the volume weighted average price of Portugal Telecom's shares on the Euronext Lisbon

Stock Exchange for the 30 trading days following the date on which Portugal Telecom Board accepts the Offer.

PT decided to call an extraordinary General Shareholders Meeting on 30th June 2010, in order to discuss and decide about the offer made by Telefónica.

On the 23rd June, 2010, Telefónica announced that it had decided to reduce its participation in PT from 10% to 2.02%. Meanwhile, UBS and Credit Suisse interested in the acceptance of the offer, increased their positions up to 5.84% of PT's voting rights, however those votes were excluded in the General Shareholders Meeting.

One day before the General Shareholders Meeting, on 29th June 2010, Telefónica revised the value of the offer, raising the value to €7.15 bn and defined an expiry date until 2nd July 2010. Telefónica offered two alternatives to acquire PT's participation of 50% in Brasilcel. The terms of this offer are: Alternative A – Telefónica made a single payment to PT for the total value of the offer or Alternative B – payment of 1/3 (€2.4 bn) on closing date; Put rights; requirement of a minimum of 5% return on balance; transitional agreements; sale of Dedic company, Call over PT on 10% of shares held by Telefónica and a clause for non competition between the two companies in the Iberia market.

On 30th June 2010, in the general board meeting were present the owners of 615.639.437 shares representative of 68.7% of PT's capital and were only admitted the voting of 563.988.187 outstanding shares, representative of 62.9% of PT's capital.

Table 1 – Decomposition of the votes in the General Board Meeting

Voting	Number⁷	% Votes
Votes in favor of the offer	748.952	73.9%
Votes against the offer	264.354	26.1%
Abstentions	114.293	-
A shares	1*	-

Source: PT, Investor relations 2010

The voting quorum was 62.9% and 74% of the votes were favorable to the acceptance of the offer and only 26.1% of PT's private capital, excluding the State, voted against the operation.

⁷ Each vote = 500 shares

*included in the votes against the offer

The shareholders who voted in favor of the offer were: BlackRock, Norges Bank, BES, Brandes, HS Holding, UBS, TGP-Axon, Barclays and Deutsche Bank. The shareholders who voted against the offer were: CGD, Controlinveste and Visabeira.

However, since the Portuguese government has special rights in this company possessing 500 Class A shares, the state gave instructions to the State shareholder: CGD to vote against the offer and block the operation. That right is predicted in the 14^o article of PT's statutes, and says: "(...) regarding the selling of some assets, those decisions could not be made with the State opposition."

The Portuguese government defended that it had used the golden share in order to protect the Portuguese interests in Brazil, keeping the strategic position in a market with a large growth potential. However, those special rights detained by the State are controversial, and on 31st January 2008, the European Commission defended in Court that those special rights discourage the investment of other EU state members and violate the rules of the European Law agreement.

After the General Board meeting, on 8th July 2010, the European Court defended that the use of the golden share was illegal and constituted a constraint to the free capital movements. Furthermore, the European Union stated the following announcement, against the Golden Share: "In result of the special rights detained by the Portuguese government, the investors will be stopped to participate in the management and control of PT. On the other hand, the value of the shares detained by shareholders could be negatively affected by the risk of the state not approving one important decision that was proposed by the company and not serving the best interests of the company and its shareholders."

After the use of the Golden Share, PT Board of directors decided to reject the offer and explained that they decided to decline the offer because: (1) PT thinks that the value offered is too low and does not reflect PT strategic position in the Brazilian market; (2) Vivo represents more than 50% of PT's revenues; and (3) the value offer does not reflect the synergy potential that Vivo could represent for Telefónica, if Telefonica decided to merge Vivo with Telesp.

PT found a new investment opportunity in the Brazilian market (through the company Oi), and contacted Telefónica in order to delay the expiry date of the offer until 28th July 2010, without success and the offer expired at 23:59 of 16th July 2010. After this, PT and its representatives kept negotiations with Telefónica in order to find an alternative that satisfies the interests of both companies.

Later, on 28th July 2010, Telefónica and PT negotiated the offer with success and the Board of Directors voted unanimously and decided to accept it for the amount of €7.5 bn, corresponding to 50% of participation held in Brasilcel, representing more €350 mn from the last offer (+13%).

With this deal, Telefónica removed PT from Vivo's capital and wants to pursue the leadership of mobile telecommunications in the Brazilian market, where Telefónica wants to be present in the future. To concretize this deal, Telefónica obtained financing through several banks coordinated by Citigroup. In order to make this operation, Telefónica raised the initial offer four times and offered more €1.8 bn since the first offer, it become the biggest operation made in 2010 in this industry.

PT Board of Directors approved the sale of the participation in Brasilcel and the terms of the offer were:

- Payment of €4.5 bn on closing date (no later than 60 days following this announcement);
- Payment of €1 bn on 30th December 2010;
- Payment of €2 bn until 31st October 2011;
- Transitional agreements;
- PT has to sell Dedic, evaluated in €92.1 mn;
- Industrial partnerships with Telefónica;
- There are no call options over PT stocks;
- Clauses for non competition between both companies in the Iberian market.

In addition, after the acquisition of PT's stake in Brasilcel, Telefónica will launch a public tender offer for Vivo ordinary shares that are not held by Brasilcel of which represent approximately 3.8% of Vivo's equity, an estimated transaction of €800 mn.

Telefónica will also merge Vivo with Telesp and form a major telecommunications operator in Brazil. However, in order to do this operation, Telefónica must launch a takeover to buy 40% ordinary shares that are in free-float, and must be able to pay 80% of the price offer to PT, for each share, to those investors.

Telefónica's offer for the acquisition of 50% of the stake held by PT in Brasilcel is a winner's curse case, because Telefónica cannot predict the fair value of Vivo and the offer made by Telefónica could be above or below Vivo's true value. In the end of this operation, we could also say that the value offered is below the true value, since

Telefónica is hoping to capture synergies, estimated between €3.3 bn and € 4.2 bn with the merger of Vivo with Telesp.

The end of the joint-venture detained by PT and Telefónica will be beneficial for both companies.

Since the launch of the offer, PT's market capitalization increased €2 bn and worth's more than €8 bn. The main objectives of this divestiture for PT are:

- Reduce the existing debt;
- Industrial partnerships;
- Capture international investors;
- Finance the international expansion;
- Finance investments in Capex.

Regarding the industrial partnerships, this alliance between PT and Telefónica, will allow the companies to joint R&D and create a centre in Portugal; to share technology and operations, know-how and best practice exchange. The benefits of those partnerships are: improvement of the services offer to the costumers; synergies generation; shareholders return maximization; increase of the bargaining power; access to different technologies; allows strategic partnerships with other players in the industry and the improvement of the product development cycle.

PT will invest 80% of the value obtained with this offer, approximately €6 bn in:

- Acquisition of 25.60% stake in Oi, in order to maintain its position in the Brazilian market and continue with international expansion;
- Financing capital expenditures, mostly by the expansion of the fiber optic network and the launching of 4th Generation mobile (LTE) in order to grow in the domestic market;
- Distribute an extraordinary dividend to shareholders, amounting to €1.5 bn.

The main objective of this acquisition for Telefónica is to merge Vivo with Telesp in order to form the major telecommunication group in Brazil in which Telefónica will bring its extensive track record in integrating acquisitions and capturing synergies, estimated between €3.3 bn and €4.2 bn.

Telefónica will also use Vivo commercial network in order to capture new clients for pay TV and will keep Vivo brand instead of using Movistar brand due to the fact that the former is stronger in Brazil, well known and recognized by its customers.

It is estimated that Vivo will contribute with 21.7% of Telefónica's total revenues in 2010 and is estimated that this acquisition will have a positive impact on Telefónica's earnings and cash flow generation in the first year.

This operation will benefit Vivo because it is a company with a significant growth potential in a market with 192 million inhabitants and is a very receptive society to new technologies.

VI. Impacts of the operation

i. Strategic partnership with Oi

The Brazilian market has a high growth potential, the currency will be flat against Euro and the unemployment and inflation rates decreased last year. The number of costumers is expected to grow in 10 years up to 50 million new costumers of telecommunications services.

Oi is a company that provides telecommunication services, being the 4th major Brazillian operator and is the market leader in the wireline telecommunications in Brazil.

Oi's chairman is Luiz Eduardo Falco and the company is listed in the market, through Telemar group in the Bovespa Index and in New York (American Depositary Receipt).

The shareholders are: Andrade Gutierrez Participations, SA. (19.33%); La Fonte Tel, SA; Bndes - National bank of economic and social development (31.383%); Previ - Foresight fund for the Brazilian employees (12.95 %); Funcef - Foundation of the federal economists (2.79 %) and Petros - Pension Fund of Brazil (2.74 %).

In 2009, Oi had 21.8 million clients in the wireline network business, 4.1 million clients in fixed broadband and 33.9 million clients in Oi mobile. Oi's revenues were €30 bn, in 2009, and had 19.51% market share in the Brazilian mobile telecommunications market.

Oi is the pioneer on the offering of quadruple play convergence services (fixed, mobile, ADSL broadband accesses and pay TV). Regarding the services provided, the most relevant services are wireline and mobile telecommunications.

Since PT divestiture in Vivo Joint Venture to its former partner Telefónica, PT sold the most important participation in the Brazilian market. In order to invest in the Brazilian market, on 28th July 2010, PT announced a strategic partnership with Oi, entering in a term sheet with Andrade Gutierrez Participations, SA.(AG) and La Fonte Tel, SA.(LF), the most important shareholders of Telemar Participations, holding that controls 100% of Oi.

This partnership will imply a direct and indirect investment of PT in TmarPart and in Tele North and East participations, SA., leading to a minimum economic stake of 25.60% participation on Tmar with a maximum investment of R\$8.4 bn equivalent to €3.7 bn. This strategic partnership is a long term deal, because none of the shareholders can sell its participations until five years have passed.

The terms of this partnership are:

TmarPart + other assets - R\$5.1 bn (€2.25 bn)

- Acquisition of 35% stake in TmarPart and PT becomes shareholder of AG and LF holdings and also of other significant financial assets;
- Call for a capital increase of R\$ 0.8 bn (€0.35 bn) at TmarPart and PT direct stake in TmarPart after the Seasoned Equity Offering is 12.07%.

Tele North and East participations (TNLP) – R\$3.25 bn (€ 1.6 bn)

- Call for a Seasoned Equity Offering⁸ in TNLP at a market price of R\$12 bn
- TmarPart subscribe at least R\$1.4 bn and maintains control of TNLP;

Telemar – R\$1.7 bn (€ 0.75 bn)

- Call for a Seasoned Equity Offering⁹ in TMAR at a market price of R\$12 bn

All the subscriptions referred are made in ordinary shares and the Seasoned Equity Offering has the goal to reduce the net debt; to improve and develop the operational company's agility and financial position; to allow the international expansion of these companies and their subsidiaries.

^{8 9} Seasoned Equity Offering at market values, calculated taking into consideration the volume weighted average price based on the shares prices at Bovespa over the 60 days between May 28th and July 27th 2010

In order to conclude this strategic partnership, there are several conditions that must be satisfied, such as: acquisition of 25.6% stake with a maximum investment of €8.4 bn; satisfactory auditing and *due diligence* of TmarPart and access by PT to the auditing reviews of the Oi subsidiaries; achievement of a legal authorization by Anatel and Cade; divesture by PT of all the assets and equity interests in Brasilcel.

In addition, PT acquires a direct stake of 16.2% of CTX Participations SA (Holding that controls Contax, SA.¹⁰) for €116 mn, and intends to incorporate Dedic/GPTI through the merger of IT and BPO operations. This integration will allow the generation of substantial synergies.

Following the merger and considering the proposed exchange ratio, CTX will acquire R\$49.7 mn in Contax shares held by PT and PT will subscribe a capital increase in CTX using Contax's shares and Contax will repay R\$162.6 mn intercompany loans that Dedic/GPTI has with PT. As a result, PT will hold a direct and indirect stake in CTX of 44.4%, which will then be proportionally consolidated.

Regarding timing, there are pre-established dates for each event¹¹:

Table 2 – Timetable of each event

Preliminary Agreement	SPA Negotiation	Signing	Filling	Closing
<ul style="list-style-type: none"> • 28 July 2010 • Signing of MoU • Press Release and public announcement 	<ul style="list-style-type: none"> • 31 October • Due Delligence • SPA and SHA negotiations • Filling with Anatel and CADE 	<ul style="list-style-type: none"> • Up to 60 days • ANATEL approval • Signing of SPA and SHA 	<ul style="list-style-type: none"> • Up to 95 days • Filling documents of Seasoned Equity Offering in AG, LF, TmarPart, TNL and TMAR 	<ul style="list-style-type: none"> • Up to 155 days • Closing at AG, LF and TmarPart • Subscription of Seasoned Equity Offering at TNLP and TMAR

Source: PT, Investors Presentation - Sale of Brasilcel and strategic partnership with Oi, 2010

This strategic partnership will allow PT to invest in a Brazilian operator and keep some funds from selling Vivo to invest in other countries.

In the terms of the agreement, PT has to acquire 35% participation in AG and LF companies that combined with Atlantico Foundation shareholder, represent 51% of

¹⁰ Contax, SA, is one of the leading corporate services company and the leader in the contact center services in Brazil. The net revenues and EBITDA in the last year were R\$2.3 mn and R\$0.336 mn, respectively.

¹¹ See Appendix XII – Timeline sale of Vivo and strategic partnership with Oi and Appendix XIII – Timeline of Oi and Contax transactions.

Telemar¹². The combination of those shareholders, controls Telemar and Oi, and PT can exercise veto right in order to block a decision. PT will have also an important role in Telemar Participations and its subsidiaries management and will have the right to appoint two board members for Telemar Participations, being one of those substitute and two effective members of TNL Board.

With the entry of PT in Oi's capital, the stake of Previ, Petros and Funcef, will be reduced to 13.05%, 9.69% and 7.48%, respectively.

In the future, PT could reinforce its position in Oi Group up to 30% because it will participate in the capital raising foreseen in the agreement.

This strategic partnership will allow PT to maintain its scale in Brazil; to access new technologies, innovation and R&D; to continue the investment in new technologies and services worldwide and to pursue value opportunities in Latin America and Africa.

On Oi's side, this arrangement allows Oi to receive know how from PT and have an active participation in company's board of directors, to have a minority participation in PT and in some projects in Europe and Africa allowing Oi to enter in African markets, because PT has a strong position in it (Angola, Cape verde, Namibia, São Tome & Principe and Mozambique). Another advantage for Oi is the easiness to access technology provided by PT, allowing the modernization of the wireline network.

With the increase of scale, provided by PT, Oi could in the future acquire TIM, that is the 3rd largest company in the mobile telecommunications in Brazil and increase the leadership in this segment. In alternative Oi could initiate the international expansion by acquiring companies in Colombia, since this market has a high growth potential with 42.5 million mobile telecommunication users and about 8 million users in the wireline network.

A negative aspect of this strategic partnership for the current shareholders of Oi is the fact that raising the capital required in the agreement can dilute the share price corresponding to the investments of current shareholders.

This partnership will be positive for Oi and PT because those have an extensive know how in this industry; will improve financial strength because Oi has a strong cash flow generation; growth opportunities will arise since both companies offer triple play services including wireline, mobile and internet and have the possibility to explore

¹² See Appendix XIV – Telemar shareholding structure before the operation and Appendix XV – Oi shareholding structure after the transaction

synergies; the expansion opportunities in Latin America due to the strong presence of Oi Group and PT expertise and experience could contribute to enlarge the presence of the group in emerging markets. In addition, PT and Oi will reach at the end of the operation 83 million costumers.

The end of Joint Venture Vivo and the entrance of PT in Oi's capital will benefit the Brazilian economy, because it will boost and create competition in that market. One of the goals of this strategic partnership is to allow massification and implementation of the national plan of broadband internet in Brazil. However, since this is a very ambitious project and requires a large investment by both companies, it could reduce the profitability of the shareholders.

The other objective of this operation is the bet on the pay TV in order to stop the drop of wireline network revenues in Brazil and Portugal.

Regarding the position of PT in the Brazilian market and the competitors in this industry, the market share and the total services subscriptions are shown in the table below:

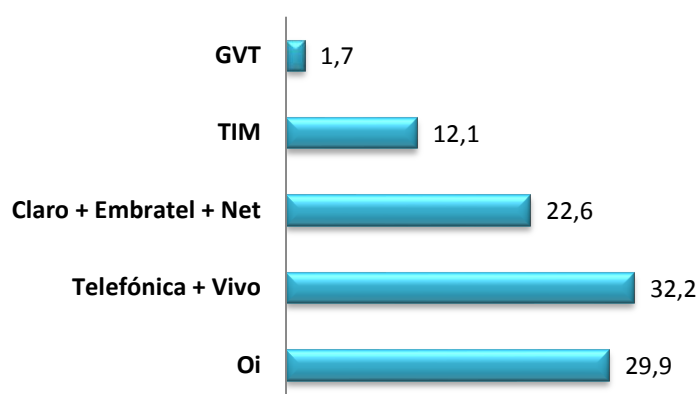
Table 3 – Decomposition of the subscriptions in the Brazillian market by company and segment

	Wireline	Broadband	Pay-TV	Mobile	Total Subs.
Oi	51%	36%	4%	20%	62.3 M
Telefónica + Vivo	27%	24%	6%	30%	68.4 M
Claro + Embratel + Net	15%	25%	51%	25%	60 M
TIM	-	-	-	24%	42.4 M
GVT	4%	6%	-	-	2.3 M

Source: PT, Investors Presentation - Sale of Brasilcel and strategic partnership with Oi, 2010

Concerning the number of subscribers, Oi is the market leader in the wireline and broadband communications. The acquisition of Vivo by Telefónica will reinforce the leadership of Vivo in the mobile telecommunications and also in the other segments and reached 68.4 million subscribers, in 2010.

Regarding the Pay-TV, the market leader is the partnership Claro + Embratel + Net with 51% of the subscriptions.

Graphic 5 – Net revenues in million R\$

Source: PT, Investors Presentation - Sale of Brasilcel and strategic partnership with Oi, 2010

Regarding the net revenues, Telefónica and Vivo achieved R\$32.2 bn, in 2009, followed by Oi with R\$ 29.9 bn. After the acquisition of Vivo by Telefónica, Vivo will reinforce its position and become the major telecommunications operator in Brazil.

Table 4 – Evolution of principal indicators and comparison of PT ex-ante and ex-post sell of Vivo stake – Values in million €

	PT	Vivo	PT ex-Vivo	Oi contribution to PT	PT post transaction
Revenues	6.785	3.080	3.705	2.535	6.240
EBITDA	2.502	947	1.555	844	2.399
EBITDA margin	37%	31%	42%	33%	38%
CAPEX	1.268	421	847	434	1.263
Net Debt	5.528	699	-2.671	1.077	2.184
Net Debt/Ebitda	2.2x	0.7x	-1.7x	1.3x	0.9x

Source: PT, Investors Presentation - Sale of Brasilcel and strategic partnership with Oi, 2010

As we can see in the table above, the swapping of Vivo and Oi companies, will allow PT to keep its position but reduce PT importance in the Brazilian market.

Regarding the revenues and Ebitda, the contribution of Vivo is higher than Oi's contribution. However, regarding Ebitda margin and Capex, the values of post transaction are similar to the values obtained with Vivo.

Regarding the Net debt and the multiple Net debt/ Ebitda, the values presented by Oi are very high when compared with the ones obtained with the joint-venture Vivo. In the multiple case, we can see that PT itself has -1.7x and with Vivo the value was much higher reaching 2.2x, however, with the Oi contribution, this value increases until 0.9x. Regarding the number of costumers, PT itself has 21 million customers, with the Joint Venture Vivo has 77 million and with the strategic partnership with Oi will reach 83 million customers.

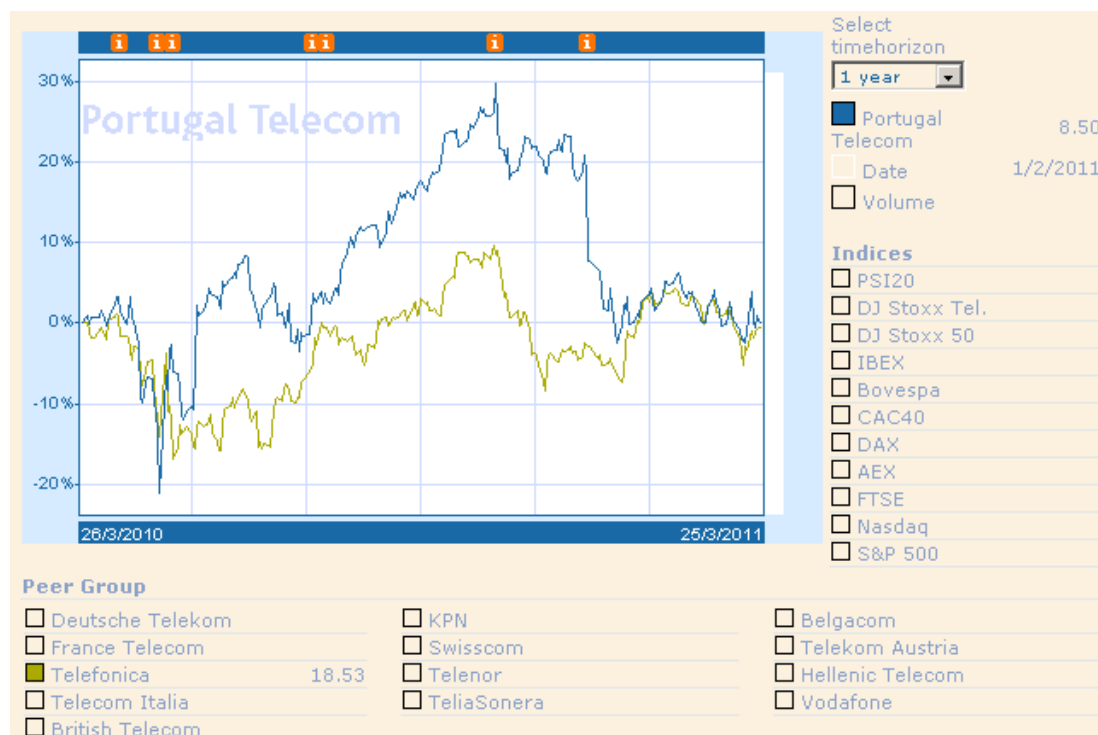
Empirical Analysis

VII. Share's Performance

i. Portugal Telecom vs Telefónica

The graphic below represents the market capitalization of PT's shares vs Telefónica shares, between the period of 26th March 2010 and 25th March 2011.

Graphic 6 – PT vs Telefónica share's performance



Source: PT, Website 2010

As we can see in the graphic, on day 3rd May PT shares were quoted at €9.29 (in the beginning of this analysis).

On 6th May, PT received a Initial proposal by Telefónica of € 5.7bn for selling the 50% stake held in Vivo, and in this day, quotes of PT shares grew, because the investors believed in the growth opportunity of the mobile segment in Brazil, where PT and Telefónica share Vivo's control.

On 7th May, PT's shares decreased in the market, and reached €7.71 per share. This offer was interpreted by the market as a bad sign because investors knew that this offer did not reflect the strategic position of PT in the Brazil.

Between the period of 9th and 12rd May, quotes of the PT's shares recovered and reached the €10.1 per share after the rejection of the offer by PT.

On 27th May, quotes of PT shares grew more than 6% in the market and this was the major growth in the European Telecoms.

On 1st June, Telefónica made a new offer, this time, offering €6.15 bn for the 50% stake of PT held in Vivo. In this day the quotes of PT shares raised 8.52% and reached the value of €10.95 per share.

On 23rd June, a week before the General Board Meeting, Telefónica reduced its stake on PT's capital from 10% to 2.02%. This was interpreted by the market as a bad sign because Telefónica was transferring his voting rights to other shareholders in order to get the votes necessary to the acceptance of the offer. Later on, those votes were rejected in the general board meeting.

Additionally, since day 6th until the day 30th June, PT shares raised 25.3% and PT reached a market capitalization of €8 bn. This recovery of PT shares occurred because investors had the expectation of a financial fit (through dividend distribution or shares buyback) with the selling of Vivo to Telefónica. However the General Board made pressure in order to PT invest the cash in the company (thought investment in Capex), to continue the international expansion and use it to reduce existent debt.

If General Board Meeting decided to refuse Telefónica offer, the expectation of a financial fit disappears and quotes of PT shares would fall in the market in function of the uncertainty. Otherwise, if PT accepts the offer, PT shares will raise and the expectation of a financial fit would be confirmed.

Quotes of PT shares decreased in the whole week and reached the lowest value of €9.92 on June 30rd, after Telefónica raised the offer to €7.15 bn (+ €650 million). After the General Board Meeting, when the Portuguese government used the golden share and blocked the operation, the quotes of PT shares raised in the whole week, except on 9th July, the day after the European Justice Court decided that, the golden share held by the government, was illegal.

On 29th July, PT informed the market that it had decided to sell 50% stake held in Brasilcel to Telefónica for €7.5 bn and decided to invest in Oi. Those events, allowed PT quotes to raise and to reach 11€ per share. This was a good sign interpreted by the market and PT achieved the highest quote for its shares, because with the end of Joint Venture and with the strategic partnership with Oi, PT could maintain its position in the Brazilian market.

In conclusion, the market always penalized the quotes of PT shares when Telefónica revised the value of the offer because the market considered that if PT did not accept the offer it would have destroyed value to PT's shareholders.

As we can see in the same graphic, on 3rd May Telefónica shares were quoted at €15.83. On 6th May, PT received an Initial proposal by Telefónica of € 5.7 bn for selling the 50% stake held in Vivo. Until 7th May, Telefónica's shares decreased in the market, reached the value of €14.24 per share and this offer was interpreted by the market as a bad sign because investors knew that this offer did not reflect the strategic position of PT in the Brasil, and that it would be rejected by PT.

Between the period of 9th and 12rd May, quotes of the Telefónica's shares recover and reached €15.41 per share, after the rejection of the offer by PT.

On 27th May, quotes of Telefónica shares remain stable and investors believe in the possibility of a hostile takeover over PT, since PT rejected the first offer made by Telefónica in order to acquire Vivo, for an amount of €5.7 bn.

On 1st June, Telefónica made a new offer, this time, offering €6.15 bn for the 50% stake of PT held in Vivo and in that day the quotes of Telefónica shares raised and reached the value of €15.06 per share.

On 23rd June, a week before the general board meeting, Telefónica reduced its stake on PT's capital from 10% to 2.02%. This was interpreted by the market as a bad sign

because Telefónica was transferring its voting rights to other shareholders in order to get the votes to accept the offer. Later on, those votes were rejected in the general board meeting. In that week, the quotes of Telefónica shares decreased 5% and reached the lowest value of €14.58 on June 29th, after Telefónica raised the offer to €7,15 bn (+ €650 mn). After the general board meeting, when the Portuguese government used the golden share against the offer, the quotes of Telefónica shares raised in the whole week.

Between 8th and 9th July, the day after the European Justice Court decided that the golden share held by the government, was illegal, Telefónica quotes shares raised to €15.64, because this was interpreted by the market as a bad decision made by the Portuguese government.

On 29th July, one day after PT informed the market that it had decided to made a deal with Telefónica for €7.5 bn and to invest in Oi, maintaining his strategic position in Brasil, Telefónica quotes raised 3.23% and achieved €16.93. This was a good sign interpreted by the market, especially because of the synergies that Telefónica is expected to obtain with the end of Joint Venture with PT and the fact that Telefónica can merge Vivo and Telesp and form the major telecommunications operator in Brazil.

In conclusion, the market always increased the quotes of Telefónica's shares, when Telefónica revised its offer in order to buy the 50% stake of PT in Brasilcel, because the investors consider that the offer will create value to Telefónica's shareholders.

With this analysis, we can conclude that PT and Telefónica share's performance depends on the information/new events in the market.

ii. Portugal Telecom vs PSI-20 index and Telefónica vs IBEX 35 index

The graphic represents the market capitalization of PT's shares vs PSI-20 index and the capitalization of Telefónica vs IBEX 35 index, between the period of 26th March 2010 and 25th March 2011.

Graphic 7 – PT vs PSI-20 index and Telefónica vs IBEX 35 index



Source: PT, Website 2010

As we can see in the graphic above, the market capitalization of the PSI-20 index was very similar to the PT's shares performance and the behavior of IBEX35 index was also pretty similar to Telefónica's shares performance.

Those companies represent a small percentage of the market capitalization we can conclude that the markets are very influenced by the announcements/events made by Telefónica and PT.

VIII. Event Studies

In order to test the market efficiency, the elaboration of the event study analysis, where it is needed to build a chronogram with the principal events occurred in this operation¹³, and then choose some of those in order to perform the analysis.

In the event study methodology it is usual to classify the event announcement date as ‘event day’ (day 0) and it corresponds to the event date and occurs when the market session is already closed.

In this study, it was decided to create an ‘estimation window’ of 250 trading days for the parameters estimation and an ‘event period’ of 20 days (10 days corresponding to the ‘pre-event’ and 10 days corresponding to the ‘post-event’).

According to the analysis of the available data, there are several events associated with PT and Telefónica announcements, however for this study we consider only four of them, in order to apply the three different models of the event study analysis.

The first event corresponds to the day of the initial offer made by Telefónica (06/05/10) in order to buy 50% stake held by PT in Brasilcel, for the amount of €5.7 bn. The event window is the following and contains also the day when PT rejects the offer (10th May 2010):



The second event corresponds to the day when Telefónica raised the initial offer and launched a second offer (01/06/10) in order to acquire Vivo, for the amount of €6.5 bn. The event window is the following:



¹³ See Appendix XVI – Chronogram of events for Event Study analysis

The third event corresponds to the day when the General Board Meeting occurred and when the Portuguese government used the golden share in order to block the operation (30/06/10). The event window contains also the day when Telefónica sold 8% stake held in PT with the purpose of other shareholders increasing their positions and then vote in favor of this operation (24th June 2010). The event window is the following:



The fourth event (29/07/10) corresponds to the day after PT informs the market about the deal made with Telefónica for the acquisition of the stake held by PT in Brasilcel for the amount of €7.5 bn (+ €350 mn from the last offer) and is also the day when PT informed the market about the acquisition of 25.6% stake in Oi for an amount of €3.7 bn in order to maintain its position in the brazilian market. The event window is the following:



In order to perform the event study analysis, it is necessary to develop a statistical series of daily returns for PT, Telefónica, PSI-20 and IBEX-35, in order to apply this methodology considering the four events¹⁴.

In this master thesis, three different perspectives were applied for the event study analysis: Market Model, Market adjusted returns and Constant Mean adjusted returns¹⁵.

¹⁴ In order to perform this analysis, the data sourced used was the Yahoofinance.com and Euronext.com websites and the data range was from 1 January 2009 until 31 October 2010.

Equally Weighted

i. Market model

The market model relates the return of any security with the return of the market portfolio. This model follows the assumption of joint normality of assets returns and is defined by the formula:

$$R_{i\tau} = \alpha_i + \beta_i R_{m\tau} + \varepsilon_{i\tau} \quad (1)$$

Where:

$R_{i\tau}$ - is the rate of return generated by the security "PT/Telefónica" in the period τ

$R_{m\tau}$ - is the rate of return generated by the market portfolio "PSI – 20/IBEX35" in the period τ

α_i - is a constant term

β_i - is the Beta coefficient of the linear regression of security "PT/Telefónica" in relation to the market return rate "PSI – 20/IBEX35"

$\varepsilon_{i\tau}$ - is the residual term (By assumption: $E(\varepsilon_{i\tau}) = 0$)

For the computation of the market model, it is necessary to create a series of daily returns using 250 trading days in order to estimate the parameters of the regression (α and β).

Next are presented the tables with the regression results given by Excel for PT/PSI-20 and PSI-20/IBEX-35 for the four events¹⁶:

Table 5 – Regression data

PT/PSI-20	β	α	TF/IBEX-35	β	α
Event 1	0,85	-0,02	Event 1	0,61	-0,02
Event 2	1,04	-0,04	Event 2	0,71	-0,07
Event 3	1,04	0,00	Event 3	0,74	0,02
Event 4	1,03	-0,01	Event 4	0,75	0,00

After the estimation of the parameters of the model, I can apply the formulas described before and obtained a statistical series of results for this model, for PT and Telefónica.

¹⁶ See Appendix XVII – PT/PSI-20 – Regression Data and Appendix XVIII – Telefónica/IBEX-35 – Regression Data

ii. Market adjusted returns Model

The Market-adjusted returns model, adjusts the returns of the security by the market returns in the period τ and is defined by the formula:

$$AR_{i\tau} = R_{i\tau} - R_{m\tau} \quad (4)$$

Where:

$R_{i\tau}$ – is the rate of return generated by the security "*PT/Telefónica*" in the period τ

$R_{m\tau}$ – is the rate of return generated by the market portfolio "*PSI – 20/IBEX35*" in the period τ

By assumption: $\alpha = 0$ and $\beta = 1$.

For the computation of this model, it was necessary to compute the difference between PT daily returns and PSI-20 and Telefónica daily returns and IBEX-35.

iii. Constant mean adjusted returns Model

The Constant mean adjusted returns model, adjusts the returns by the mean of returns in the period τ and is defined by the formula:

$$AR_{i\tau} = R_{i\tau} - \bar{R}_i \quad (5)$$

Where:

$R_{i\tau}$ – is the rate of return generated by the security "*PT/Telefónica*" in the period τ

\bar{R}_i – is the arithmetic mean of the daily returns generated by the security "*PT/Telefónica*"

For the computation of this model, it is necessary to compute the average of the daily returns of PT and Telefónica for each event. Then it is necessary to compute the difference between the daily returns of the companies and the average daily returns of each company.

The next table presented contains the average daily returns for PT and Telefónica for each of the four events:

Table 6 – Average Mean for each event

	Event 1	Event 2	Event 3	Event 4
Mean PSI20	0,077%	0,009%	0,012%	0,029%
Mean PT	0,184%	0,120%	0,148%	0,102%
Mean IBEX35	0,097%	0,017%	0,018%	0,055%
Mean Telefónica	0,081%	0,038%	0,058%	0,061%

After the computation of the three models, it is necessary to compute the statistical significance of the model, and for that purpose, it is necessary to compute the AAR, CAAR and the statistical models θ_1 and θ_2 for the four events and for the three models. The aggregated table, in which I compute the aggregated AAR, by the sum of the AAR obtained in each of the four events and then divided that value for four events. This operation was made for the three models, and after the computation of the AAR, was computed the CAAR and the statistical tests θ_1 and θ_2 ¹⁷.

The table presented following is a table with the aggregated data¹⁸:

¹⁷ All the statistic series and regression results are in the file: Event study – Equally Weighted. xls in the CD attached to this master thesis.

¹⁸ See Appendix XIX until Appendix XXII – Series of returns Equally Weighted for Event Study Analysis

Table 7 - Aggregated data for the Equally weighted event study analysis

	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α
Event day	Market Model						Market adjusted returns Model						Constant Mean adjusted returns Model					
10	-2,05208%	-2,02614	5%	-37,96890%	-3,51919	5%	1,20352%	2,033077	5%	4,27500%	2,766792	5%	0,71102%	0,58115	10%	0,22521%	0,1458	10%
9	-2,70819%	-2,67397	5%	-35,91683%	-3,32899	5%	0,83698%	1,41389	10%	3,07147%	1,987869	10%	-0,45946%	-0,37554	10%	-0,48581%	-0,31451	10%
8	-0,90945%	-0,89796	10%	-33,20864%	-3,07798	5%	-1,13006%	-1,90897	10%	2,23449%	1,446171	10%	-0,02500%	-0,02043	1%	-0,02635%	-0,01706	1%
7	-0,86418%	-0,85326	10%	-32,29919%	-2,99369	5%	0,64617%	1,091555	10%	3,36455%	2,177546	5%	1,55849%	1,273833	10%	-0,00135%	-0,00087	1%
6	-2,99875%	-2,96086	5%	-31,43501%	-2,91359	5%	-0,34379%	-0,58075	10%	2,71838%	1,759344	10%	-2,03640%	-1,66445	10%	-1,55984%	-1,00983	10%
5	-2,03041%	-2,00475	5%	-28,43625%	-2,63565	5%	0,00321%	0,005421	1%	3,06216%	1,981843	10%	-0,46571%	-0,38065	10%	0,47656%	0,308521	10%
4	-0,94996%	-0,93796	10%	-26,40584%	-2,44746	5%	0,59435%	1,004026	10%	3,05895%	1,979766	10%	1,44433%	1,18052	10%	0,94226%	0,610017	10%
3	-2,09726%	-2,07076	5%	-25,45588%	-2,35941	5%	0,32755%	0,553323	10%	2,46460%	1,595097	10%	-0,32162%	-0,26287	10%	-0,50206%	-0,32503	10%
2	1,37729%	1,359886	10%	-23,35862%	-2,16502	5%	-0,22412%	-0,37861	10%	2,13705%	1,383105	10%	3,80643%	3,111181	5%	-0,18044%	-0,11682	10%
1	-2,80076%	-2,76536	5%	-24,73591%	-2,29268	5%	0,72800%	1,229796	10%	2,36117%	1,528159	10%	-0,71612%	-0,58532	10%	-3,98687%	-2,58108	5%
0	-2,16795%	-2,14055	5%	-21,93515%	-2,03308	5%	0,88869%	1,501244	10%	1,63317%	1,056993	10%	0,17536%	0,143333	10%	-3,27075%	-2,11747	5%
-1	-2,75732%	-2,72247	5%	-19,76720%	-1,83215	10%	0,34078%	0,575669	10%	0,74448%	0,481828	10%	-1,03775%	-0,8482	10%	-3,44611%	-2,23099	5%
-2	-1,43772%	-1,41955	10%	-17,00989%	-1,57658	10%	0,37669%	0,63633	10%	0,40370%	0,261274	10%	0,43779%	0,357824	10%	-2,40837%	-1,55916	10%
-3	-1,22598%	-1,21049	10%	-15,57217%	-1,44332	10%	-0,05181%	-0,08752	10%	0,02701%	0,01748	1%	0,35539%	0,290478	10%	-2,84615%	-1,84258	10%
-4	-2,79845%	-2,76308	5%	-14,34619%	-1,32969	10%	0,59167%	0,999494	10%	0,07882%	0,05101	10%	-0,67294%	-0,55002	10%	-3,20154%	-2,07266	5%
-5	-0,86742%	-0,85646	10%	-11,54774%	-1,07032	10%	-0,27262%	-0,46053	10%	-0,51286%	-0,33192	10%	0,71221%	0,582123	10%	-2,52860%	-1,63701	10%
-6	-2,07285%	-2,04666	5%	-10,68032%	-0,98992	10%	0,27641%	0,466939	10%	-0,24024%	-0,15548	10%	-0,30044%	-0,24557	10%	-3,24081%	-2,09809	5%
-7	-2,64620%	-2,61276	5%	-8,60747%	-0,79779	10%	-0,06842%	-0,11557	10%	-0,51665%	-0,33438	10%	-1,32795%	-1,0854	10%	-2,94037%	-1,90358	10%
-8	-2,13094%	-2,10401	5%	-5,96127%	-0,55253	10%	-0,07977%	-0,13475	10%	-0,44823%	-0,2901	10%	-0,65253%	-0,53334	10%	-1,61242%	-1,04387	10%
-9	-1,55745%	-1,53776	10%	-3,83033%	-0,35502	10%	-0,97357%	-1,64463	10%	-0,36846%	-0,23847	10%	-0,71732%	-0,5863	10%	-0,95989%	-0,62143	10%
-10	-2,27288%	-2,24416	5%	-2,27288%	-0,21066	10%	0,60511%	1,022194	10%	0,60511%	0,391629	10%	-0,24257%	-0,19826	10%	-0,24257%	-0,15704	10%

The event 1 occurred on the 6th May 2010, day of the announcement of Telefónica's offer to buy the stake held by PT in Vivo.

According with the market model, it were detected abnormal returns on the day 2 and 6 after the event day, with returns higher than 6% (AAR), being those returns statistically significant at a significance level of 5%. We can conclude that this event had a positive impact in the market capitalization of PT and Telefónica.

Observing the returns obtained according with the market adjusted returns model and constant mean adjusted returns model, we can conclude that this impact was attenuated, observing however abnormal returns in those models of 4.54% and 13.05%, respectively on days 3 and 2 after the event day.

The event 2 occurred on day 1st June 2010, and was the day when Telefónica launched the second proposal of €6.5 bn to buy the stake held by PT in Vivo.

According with the market model, it were detected abnormal returns every days, before and after the event day, with returns higher than -7% (AAR), it was observed a return of -7.9% (AAR) on the day 4 before the event day, being this return statistically significant at a significance level of 5%. We can conclude that this event had a negative impact in the market capitalization of PT and Telefónica.

Observing the returns obtained according with the market adjusted returns model and constant mean adjusted returns model, we can conclude that the impact was attenuated and the higher impact was observed in the market model.

The event 3 occurred on day 30th June 2010, and was the day when occurred the general board meeting to allow shareholders to decide about the offer made by Telefónica and when the Portuguese government used the golden share.

According with the market model, it were detected abnormal returns on days 3 and 4 after the event day, corresponding to returns of 3.7% and 3.17% (AAR), respectively, being those returns statistically significant at a significance level of 5%. We can conclude that this event had a positive impact in the market capitalization of PT and Telefónica.

Observing the returns obtained according the market adjusted returns model and constant mean adjusted returns model, we can conclude that the impact was attenuated and the higher impact was observed in the market model.

The event 4 occurred on day 28th July 2010, and was the day when PT made a deal with Telefónica for selling Vivo and announces the strategic partnership with Oi.

Observing the returns obtained according the three models, we can conclude that were not detected abnormal returns associated with this event, because the market was already expecting this outcome.

Market Value Weighted

The models presented before, were computed considering that Telefónica and PT had the same weight. That assumption is not correct, and in order to eliminate the bias of this study, the event study analysis is also prepared considering the market value weighted of both companies.

For that purpose, for each day of the event window, the weight of each company considering its market capitalization is computed.

For the application of this methodology the following formulas are used to find the weights of PT and Telefónica:

$$W_{PT} = \frac{n \text{ outstanding shares } PT \times PT \text{ quote}}{n \text{ outstanding shares } PT \times PT \text{ quote} + n \text{ outstanding shares } TF \times TF \text{ quote}}$$

$$W_{TF} = \frac{n \text{ outstanding shares } TF \times TF \text{ quote}}{n \text{ outstanding shares } PT \times PT \text{ quote} + n \text{ outstanding shares } TF \times TF \text{ quote}}$$

This methodology considering the Market Value Weighted is a way to include the market capitalization of PT and Telefónica and to give more weight to Telefónica since Telefónica has a higher dimension and market capitalization than PT.

After the computation of the weights of PT and Telefónica and considering the market capitalization of each company the computation of the three models for each event, were recalculated using then the weights of each company.

For the computation of the three models, the formulas used were:

i. Market model

$$E_t(Rp) = W_{PT} \times E(R_{PT}) + W_{TF} \times E(R_{TF})$$

Where:

W_{PT} – is the PT weight

W_{TF} – is the Telefónica weight

$E(R_{PT/TF})$ – is the daily return obtained by the equally weighted method, for PT and Telefónica

ii. Market adjusted returns Model

$$E_t(Rp) = W_{PT} \times E(R_{PSI-20}) + W_{TF} \times E(R_{IBEX-35})$$

Where:

$E(R_{PSI-20/IBEX-35})$ – is the daily return of the PSI-20 and IBEX-35 indexes

iii. Constant mean adjusted returns Model

$$E_t(Rp) = W_{PT} \times \text{Average PT} + W_{TF} \times \text{Average TF}$$

Where:

Average PT/TF – is the mean of the daily returns of PT and Telefónica

After the re-computation of the three models, the AAR and CAAR and the statistical tests θ_1 and θ_2 were also computed¹⁹.

Following is presented the table with the results of the computation of AAR, CAAR, θ_1 and θ_2 for the three models using the weights of PT and Telefónica²⁰:

¹⁹ All the statistic series and regression results are in the file: Event study – Market Value Weighted. xls in the CD attached to this master thesis.

²⁰ See Appendix XXIII until Appendix XXVI – Series of returns Market Value Weighted for the Event Study Analysis

Table 8 - Aggregated data for the Market Value weighted event study analysis

	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α
Event day	Market Model						Market adjusted returns Model						Constant Mean adjusted returns Model					
10	-1,91817%	-6,27012	5%	-40,32189%	-3,3857	5%	-0,26935%	-0,18925	10%	-1,46243%	-1,08452	10%	0,22764%	2,703603	5%	4,77597%	3,387318	5%
9	-1,91900%	-6,27283	5%	-38,40372%	-3,22463	5%	-1,31584%	-0,92453	10%	-1,19308%	-0,88477	10%	0,22659%	2,691138	5%	4,54833%	3,225866	5%
8	-1,91827%	-6,27044	5%	-36,48472%	-3,0635	5%	1,96916%	1,383564	10%	0,12276%	0,091036	10%	0,22749%	2,70179	5%	4,32174%	3,065158	5%
7	-1,92117%	-6,27992	5%	-34,56646%	-2,90243	5%	1,04810%	0,736416	10%	-1,84640%	-1,36926	10%	0,22771%	2,704419	5%	4,09426%	2,903814	5%
6	-1,92251%	-6,2843	5%	-32,64529%	-2,74112	5%	-1,45158%	-1,0199	10%	-2,89450%	-2,14652	5%	0,22800%	2,707842	5%	3,86655%	2,742314	5%
5	-1,92143%	-6,28077	5%	-30,72279%	-2,57969	5%	-0,40013%	-0,28114	10%	-1,44292%	-1,07005	10%	0,22731%	2,699703	5%	3,63855%	2,580608	5%
4	-1,92266%	-6,28481	5%	-28,80136%	-2,41836	5%	0,78909%	0,554432	10%	-1,04280%	-0,77332	10%	0,22728%	2,699368	5%	3,41124%	2,419389	5%
3	-1,92020%	-6,27677	5%	-26,87870%	-2,25692	5%	-0,67880%	-0,47694	10%	-1,83189%	-1,3585	10%	0,22660%	2,691251	5%	3,18395%	2,25819	5%
2	-1,91652%	-6,26472	5%	-24,95849%	-2,09568	5%	4,53008%	3,182917	5%	-1,15309%	-0,85512	10%	0,22721%	2,698545	5%	2,95735%	2,097476	5%
1	-1,91467%	-6,25868	5%	-23,04197%	-1,93476	10%	-1,47322%	-1,03511	10%	-5,68318%	-4,21456	5%	0,22703%	2,696378	5%	2,73014%	1,936326	10%
0	-1,91289%	-6,25285	5%	-21,12730%	-1,77399	10%	-0,71615%	-0,50318	10%	-4,20995%	-3,12204	5%	0,22687%	2,694484	5%	2,50311%	1,775306	10%
-1	-1,91842%	-6,27094	5%	-19,21442%	-1,61337	10%	-1,59565%	-1,12113	10%	-3,49380%	-2,59096	5%	0,22827%	2,711046	5%	2,27623%	1,614398	10%
-2	-1,91706%	-6,26649	5%	-17,29600%	-1,45229	10%	0,17778%	0,124912	10%	-1,89815%	-1,40764	10%	0,22742%	2,700933	5%	2,04797%	1,452502	10%
-3	-1,92034%	-6,27721	5%	-15,37894%	-1,29132	10%	0,18318%	0,128706	10%	-2,07593%	-1,53948	10%	0,22666%	2,691911	5%	1,82055%	1,291209	10%
-4	-1,92089%	-6,27903	5%	-13,45860%	-1,13007	10%	-1,18557%	-0,833	10%	-2,25912%	-1,67533	10%	0,22678%	2,693416	5%	1,59389%	1,130455	10%
-5	-1,92249%	-6,28424	5%	-11,53771%	-0,96878	10%	0,76881%	0,540182	10%	-1,07355%	-0,79613	10%	0,22687%	2,694455	5%	1,36711%	0,969612	10%
-6	-1,92144%	-6,2808	5%	-9,61522%	-0,80736	10%	-0,55022%	-0,38659	10%	-1,84236%	-1,36627	10%	0,22604%	2,684545	5%	1,14024%	0,808706	10%
-7	-1,92249%	-6,28423	5%	-7,69379%	-0,64602	10%	-0,83633%	-0,58762	10%	-1,29214%	-0,95823	10%	0,22857%	2,714633	5%	0,91421%	0,648392	10%
-8	-1,92282%	-6,28533	5%	-5,77130%	-0,4846	10%	-0,25873%	-0,18179	10%	-0,45581%	-0,33802	10%	0,22774%	2,704738	5%	0,68564%	0,486282	10%
-9	-1,92514%	-6,2929	5%	-3,84848%	-0,32314	10%	0,79099%	0,555764	10%	-0,19708%	-0,14615	10%	0,22800%	2,707895	5%	0,45790%	0,324762	10%
-10	-1,92334%	-6,28702	5%	-1,92334%	-0,1615	10%	-0,98807%	-0,69423	10%	-0,98807%	-0,73274	10%	0,22990%	2,730423	5%	0,22990%	0,163054	10%

In this Metodology was made the weighting of PT and Telefónica returns by the weight of those in the market (ie., it was made the weighting by PT and Telefónica market capitalization).

In this methodology, the abnormal returns were detected almost exclusively in the market model.

The event 1 occurred in the day 6th May 2010, day of the announcement of Telefónica offer to buy the stake held by PT in Vivo.

According with the market model, were detected abnormal returns on every day, before and after the event day, with returns between -2% and -3% (AAR), being those returns statistically significant at a significance level of 5%.

We can conclude that this event had a negative impact in the market capitalization of PT and Telefónica, penalized by the negative performance of Telefónica, whose weight is 90%.

Observing the returns obtained according the market adjusted returns model and constant mean adjusted returns model, we can conclude that the impact was attenuated and the higher impact was observed in the market model.

The event 2 occurred on day 1st June 2010, and was the day when Telefónica launched the second proposal of €6.5 bn to buy the stake held by PT in Vivo.

According with the market model, were detected abnormal returns on every day, before and after the event day, with an average return of -5.3% (AAR), being this return statistically significant at a significance level of 5%. We can conclude that this event had a negative impact in the market capitalization of PT and Telefónica and according with this methodology the conclusions are very similar to the conclusions obtained used the equally weighted methodology, however in this methodology the returns were not so negatively affected.

Observing the returns obtained according the market adjusted returns model and constant mean adjusted returns model, we can conclude that the impact was attenuated and the higher impact was observed in the market model.

The event 3 occurred on day 30th June 2010, and was the day when occurred the general board meeting for the shareholders decide about the offer made by Telefónica and when the Portuguese government used the golden share.

According with the market model, were detected abnormal returns on every day before and after the event day, corresponding to positive returns. This event according with this methodology had a positive impact in the market capitalization of PT and Telefónica, however the returns were very low, corresponding to returns below 1%, being those statistically significant at a significance level of 5%.

This conclusion under this methodology is very similar to the conclusions withdraw in the equally weighted methodology.

Observing the returns obtained according the market adjusted returns model and constant mean adjusted returns model, we can conclude that the impact was attenuated and the higher impact was observed in the market model.

The event 4 occurred on day 28th July 2010, and was the day when PT made a deal with Telefónica for selling Vivo and announces the strategic partnership with Oi.

Observing the returns obtained according the three models, we can conclude that were detected residual abnormal returns associated with this event, because the market was already expecting this outcome. This conclusion under this methodology is very similar to the conclusions withdraw in the equally weighted methodology.

IX. Conclusions

I conclude that it were observed abnormal returns mainly in event 2 and 3, while in event 1 and 4 were also detected abnormal returns but with a lower expressivity. Also PT and Telefónica returns had a most impact in the market model and a lower impact in the other models.

Applying the event study market value weighted methodology, I observe similar abnormal returns, because of the positive or negative impact in the market capitalization of both companies.

A limitation of this study was the fact that only analyzed the impact of events in the market capitalization of both companies and didn't measure the impact on financial indicators.

A suggestion for a future analysis is to analyze several M&A operations occurred in the telecom's sector worldwide and to compare the conclusions with this study.

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<http://www.euronext.com>

XI. Appendices

Appendix I – Golden shares distributed by country

Country	# of Obs.	% of All Privatizations	Market Cap. (US\$ 1,000s)	Gov't Controlled 1996 (%)	Gov't Controlled 2000 (%)	Golden Share (%)
Australia	6	4.3	2,362,704	0.0	0.0	100.0
Austria	11	7.8	1,208,097	81.8	81.8	25.0
Belgium	2	1.4	1,704,919	50.0	50.0	100.0
Canada	9	6.4	2,218,113	22.2	22.2	87.5
Denmark	2	1.4	4,052,246	100.0	50.0	50.0
Finland	4	2.8	1,366,844	100.0	100.0	25.0
France	20	14.2	7,344,097	30.0	25.0	33.3
Germany	10	7.1	12,416,954	50.0	50.0	40.0
Greece	2	1.4	3,749,041	100.0	100.0	100.0
Ireland	2	1.4	1,238,265	0.0	0.0	100.0
Italy	12	8.5	7,626,273	50.0	33.3	50.0
Japan	4	2.8	37,368,888	75.0	75.0	33.3
Mexico	1	0.7	1,641,726	0.0	0.0	100.0
Netherlands	3	2.1	15,651,368	33.3	33.3	100.0
New Zealand	2	1.4	4,214,644	0.0	0.0	100.0
Norway	6	4.3	845,287	50.0	33.3	100.0
Portugal	9	6.4	1,280,305	11.1	11.1	80.0
Spain	5	3.5	12,161,026	40.0	20.0	50.0
Sweden	3	2.1	1,939,769	66.7	33.3	100.0
Turkey	3	2.1	236,935	0.0	0.0	100.0
U.K.	24	17.0	10,105,532	0.0	0.0	85.0
USA	1	0.7	800,036	0.0	0.0	0.0

Source: Bortolotti, B. and Mara Faccio (2007), *Government control of privatized firms*, 38

Appendix II – Golden shares distributed by industry

Industry classification	Two-Digit SIC Codes	# of Obs.	% of All Privatiz.	Market Cap. (US\$ 1,000s)	Gov't Controlled 1996 (%)	Gov't Controlled 2000 (%)	Golden Share (%)
Basic industries	10, 12, 14, 24, 26, 28, 33	13	9.2	2,788,598	53.85	53.85	60.00
Capital goods	34, 35, 38	4	2.8	2,302,681	50.00	25.00	33.33
Construction	15-17, 32, 52	3	2.1	5,074,864	33.33	33.33	50.00
Consumer durables	25, 30, 36, 37, 50, 55, 57	15	10.6	4,294,365	40.00	40.00	60.00
Finance/real estate	60-69	34	24.1	3,354,805	17.65	17.65	38.10
Food/tobacco	1, 9, 20, 21, 54	5	3.5	3,008,677	40.00	40.00	50.00
Leisure	27, 58, 70, 78, 79	3	2.1	1,990,081	0.00	0.00	100.00
Petroleum	13, 29	9	6.4	19,304,327	33.33	33.33	66.67
Services	72, 73, 75, 80, 82, 87, 89	2	1.4	1,478,758	50.00	50.00	50.00
Textiles/trade	22, 23, 31, 51, 53, 56, 59	1	0.7	2,162,774	100.00	0.00	0.00
Transportation	40-42, 44, 45, 47	17	12.1	3,877,685	47.06	47.06	64.29
Utilities	46, 48, 49	35	24.8	13,307,290	34.29	20.00	85.19

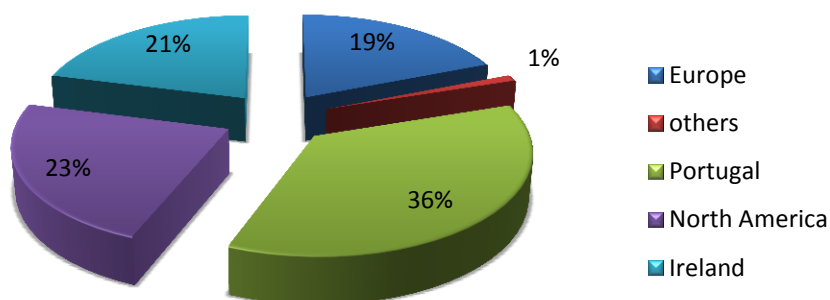
Source: Bortolotti, B. and Mara Faccio (2007), *Government control of privatized firms*, 37

Appendix III – PT Shareholders

Date of report	Shareholders	No. of shares	% of capital	% voting rights
25-Nov-10	<u>Capital Research and Management</u>	90,421,315	10.09%	10.09%
28-Jan-11	<u>Espirito Santo Group</u>	89,924,416	10.03%	10.03%
30-Jun-10	<u>Caixa Geral de Negócios Group</u>	65,740,315	7.33%	7.33%
08-Jun-10	<u>RS Holding</u>	60,698,090	6.77%	6.77%
24-Mar-11	<u>Norges Bank</u>	45,658,777	5.09%	5.09%
03-Dec-10	<u>The Income Fund of America</u>	45,091,419	5.03%	-
27-Aug-10	<u>Brandes Investment Partners</u>	44,778,416	4.99%	4.99%
15-Mar-11	<u>Telemar Norte Leste S.A.</u>	26,895,360	3.00%	3.00%
05-Jun-07	<u>Visabeira Group</u>	22,667,473	2.53%	2.53%
12-Jan-11	<u>Barclays Plc</u>	21,479,305	2.40%	2.40%
10-Dec-09	<u>BlackRock Inc.</u>	21,025,118	2.35%	2.35%
03-Feb-10	<u>Controlinveste International Finance</u>	20,419,325	2.28%	2.28%
24-Jun-10	<u>Telefónica</u>	18,122,661	2.02%	2.02%
11-Oct-10	<u>Europacific Growth Fund</u>	18,061,608	2.01%	-
17-Aug-10	<u>UBS</u>	17,961,777	2.00%	2.00%

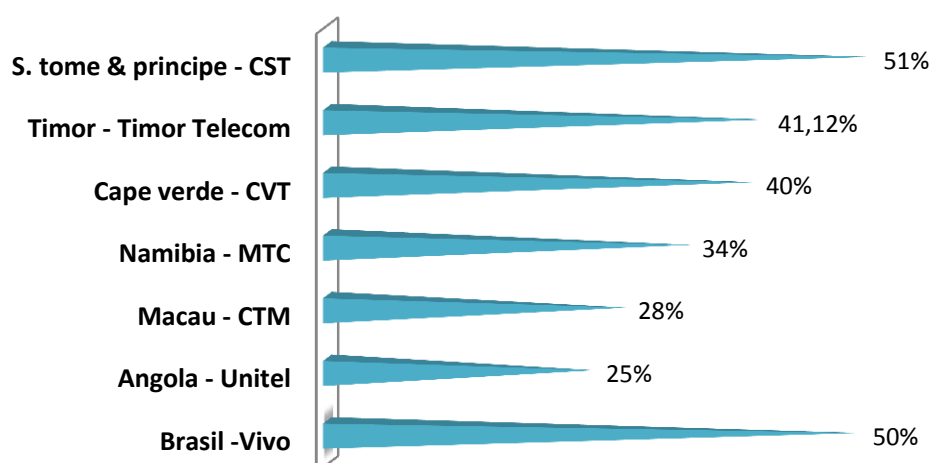
Source: PT Website, 2010

Appendix IV – PT participations worldwide



Source: PT, Financial Report 2009

Appendix V – PT international investments



Source: PT, Financial Report 2009

Appendix VI – Constituents of Telefónica Spain

Company	Stake
Telefónica of Spain	100%
Telefónica Móviles of Spain	100%
Telvco	100%
Telefónica Public Communications	100%
Telefónica Informatic and communications solutions of Spain	100%
Iberbanda	59%

Source: Telefónica, Website 2010

Appendix VII – Constituents of Telefónica Europe

Company	Stake
Telefónica o ² UK	100%
Telefónica o ² Germany	100%
Telefónica o ² Ireland	100%
Manx	100%
Be	100%
Group 3G (Germany)	100%
Telefónica o ² Slovakia	100%
Telefónica o ² Czech Republic	69%

Source: Telefónica, Website 2010

Appendix VIII – Constituents of Telefónica Latin America

Company	Stake
Telefónica of Argentine	100%
Telefónica International Wholesale Services (TIWS)	100%
Telefónica USA	100%
Brasilcel (after end of PT joint-venture)	100%
Telefónica Móviles Argentine	100%
Telefónica Móviles Perú	100%
Telefónica Móviles México	100%
Telefónica Móviles Chile	100%
Telcel of Venezuela	100%
Telefónica Móviles Colombia	100%
Otecel of Ecuador	100%
Telefónica Móviles of Panamá	100%
Telefónica Móviles of Uruguay	100%
Telefonia celular Nicaragua	100%
Telefónica Móviles solutions and applications of Chile	100%
Telefónica Móviles Guatemala	100%
Telefónica Móviles El Salvador	99%
Telefónica of Perú	98%
TLD of Puerto Rico	98%
Telesp	88%
Telefónica Telecom	52%
Telefónica of Chile	98%

Source: Telefónica, Website 2010

Appendix IX – Other participations of Telefónica Group

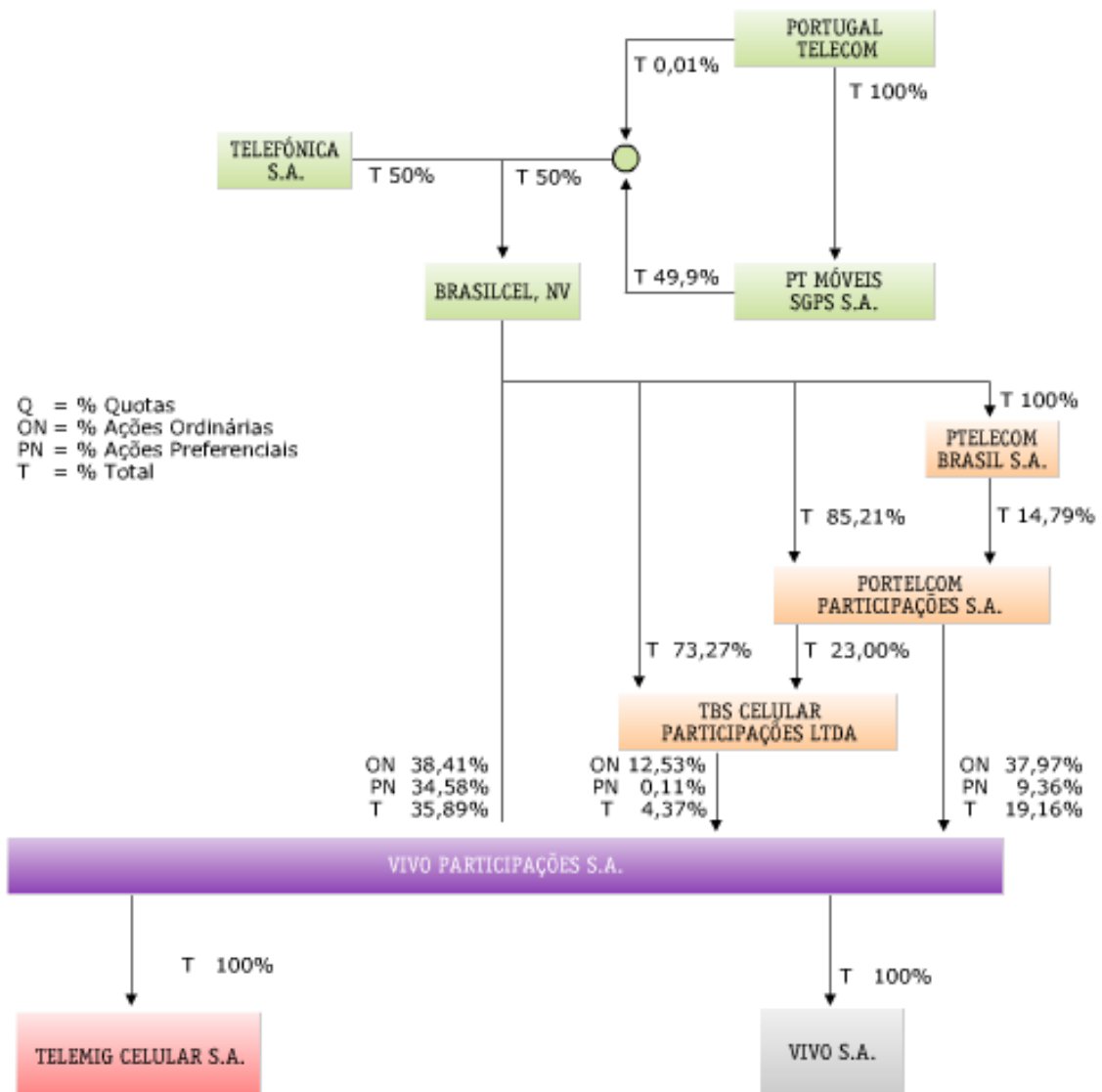
Company	Stake
3G Mobile AG of Switzerland	100%
Atento Group	100%
Telefónica of contenidos of Spain	100%
Mobiplay International	50%
Telco SpA of Italy	46%
IPSE 2000 of Italy	40%
Lycos Europe	32%
Mobiplay of Spain	17%
Hispasat	13%
Amper	6%
Zon multimedia	5%
China Unicom	5%
Portugal Telecom	2%
BBVA	1%

Source: Telefónica, Website 2010

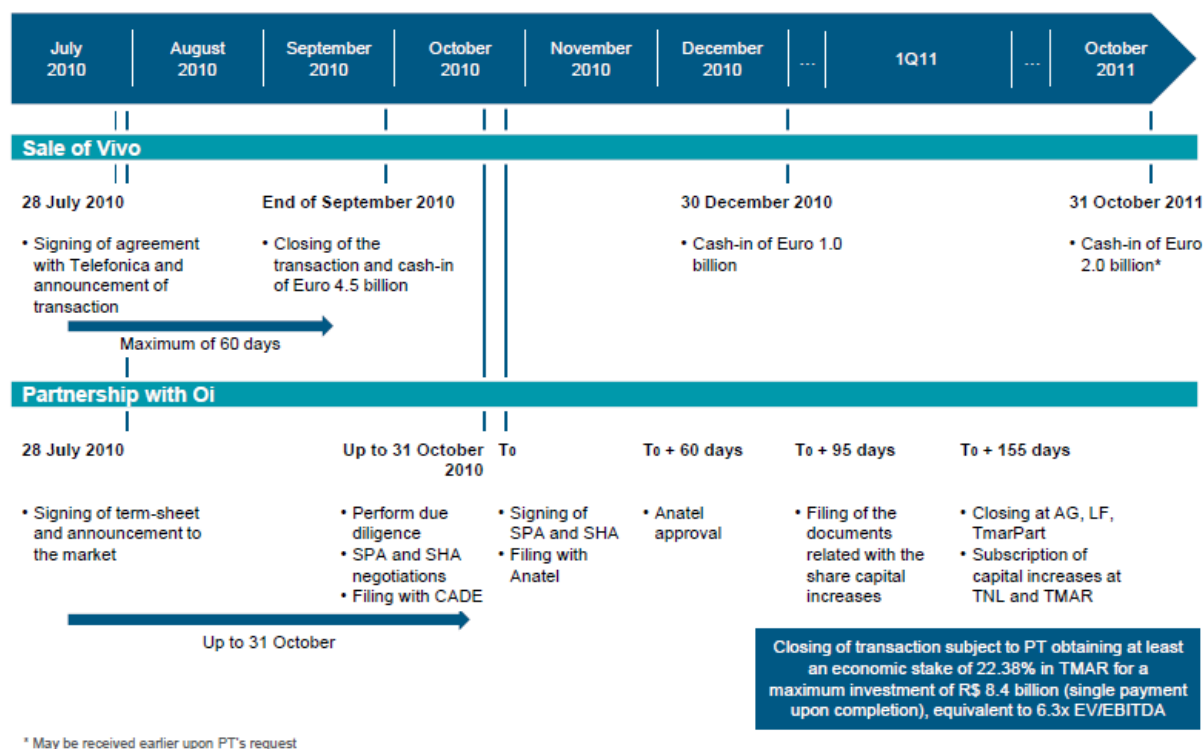
Appendix X – Worldwide services provided by Telefónica Group

- Telefónica – provides fix phone in Spain and Latin America;
- Speedy – provides internet high speed access (ADSL) since 2004;
- Terra – provides internet access in Spain and Latin America;
- iTelefónica – provides unlimited and free internet access;
- Digital TV – provides TV cable through via satellite subscription;
- Atento – provides call and contact center services in several countries;
- Movistar – provides mobile phone services in Spain and other 13 countries;
- Vivo – provides mobile phone communications in Brazil;
- O2 – provides fix and mobile communications and ADSL internet access in England, Ireland, Germany, Czech Republic and Slovakia;
- VocêTv – provides via satellite TV since 2006 with a partnership with DTHI.

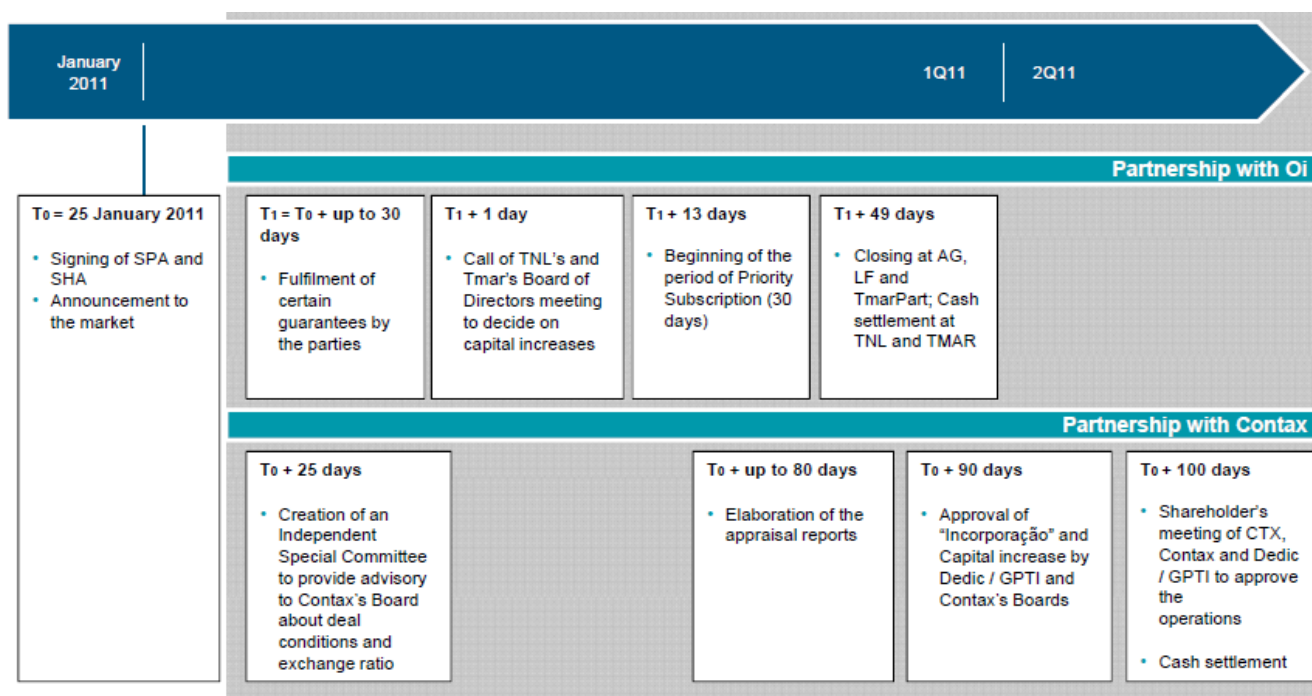
Appendix XI – Vivo shareholding structure before Telefónica acquisition



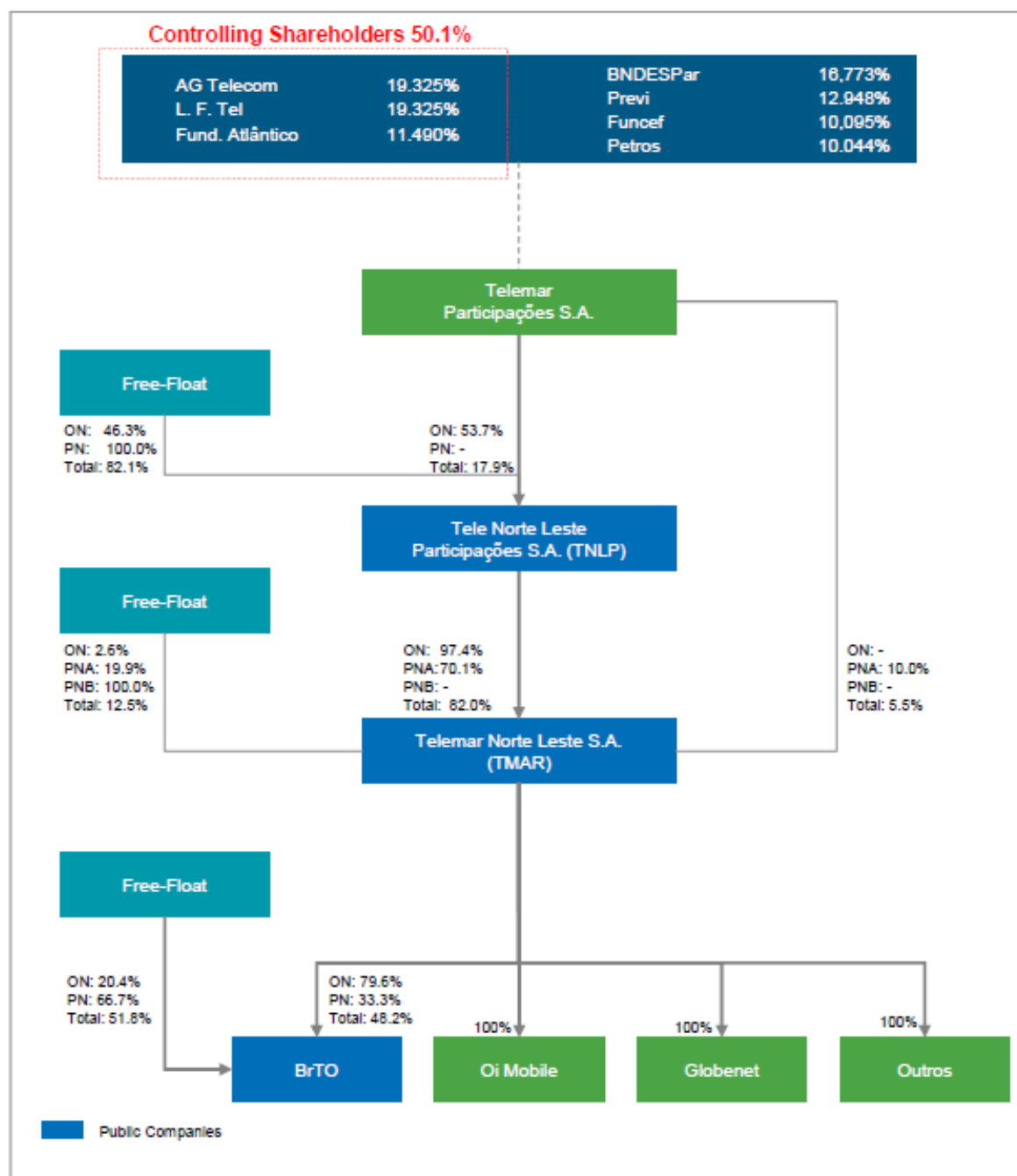
Appendix XII – Timeline sale of Vivo and strategic partnership with Oi



Appendix XIII – Timeline of Oi and Contax transactions



Appendix XIV – Telemar shareholding structure before the operation

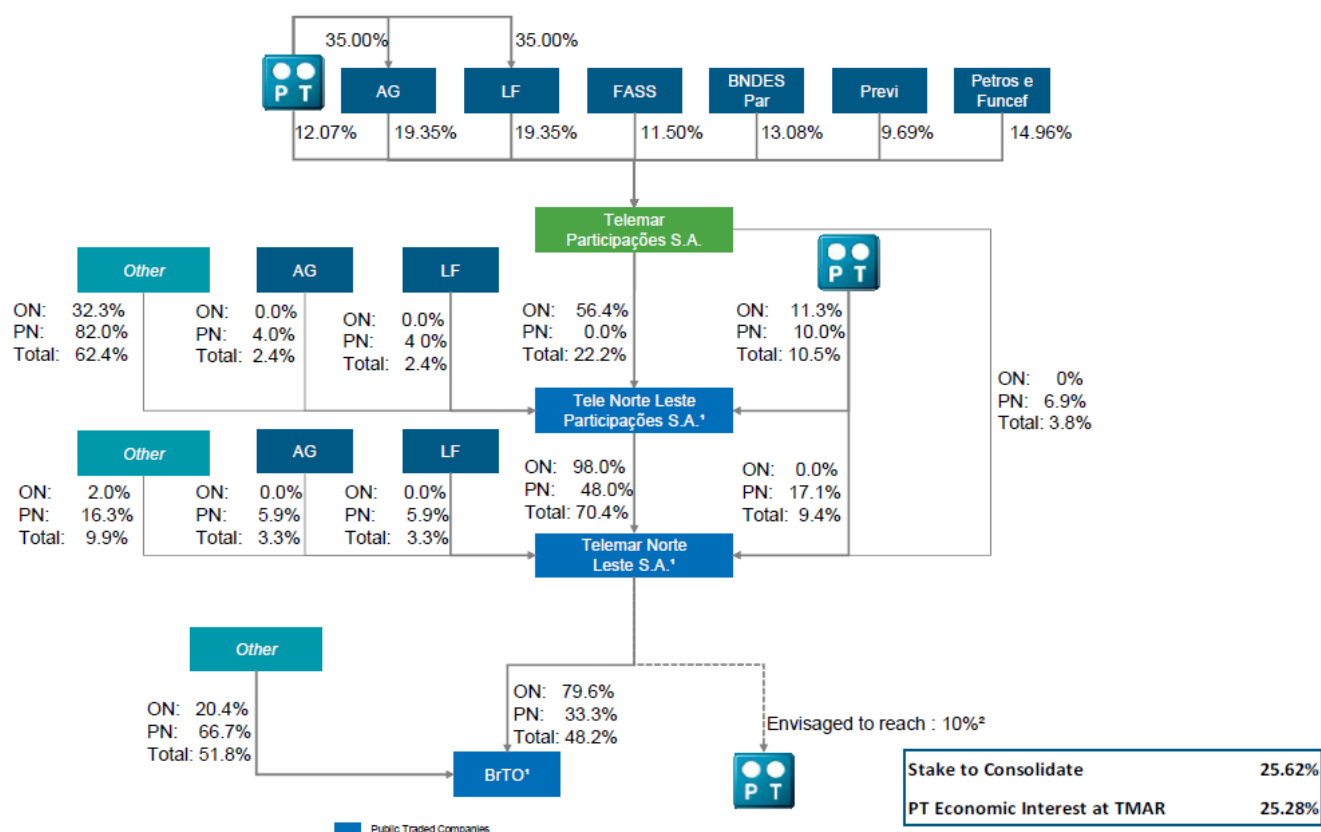


Source Company's disclosed Information

Notes

1. Tickers in Bovespa and NYSE: TNE (TNLP4 and TNE); BRTP (BRTP4 and BTP), BRTO (BRTO4 and BTM), TMAR (TMAR5)

Appendix XV – Oi shareholding structure after the transaction

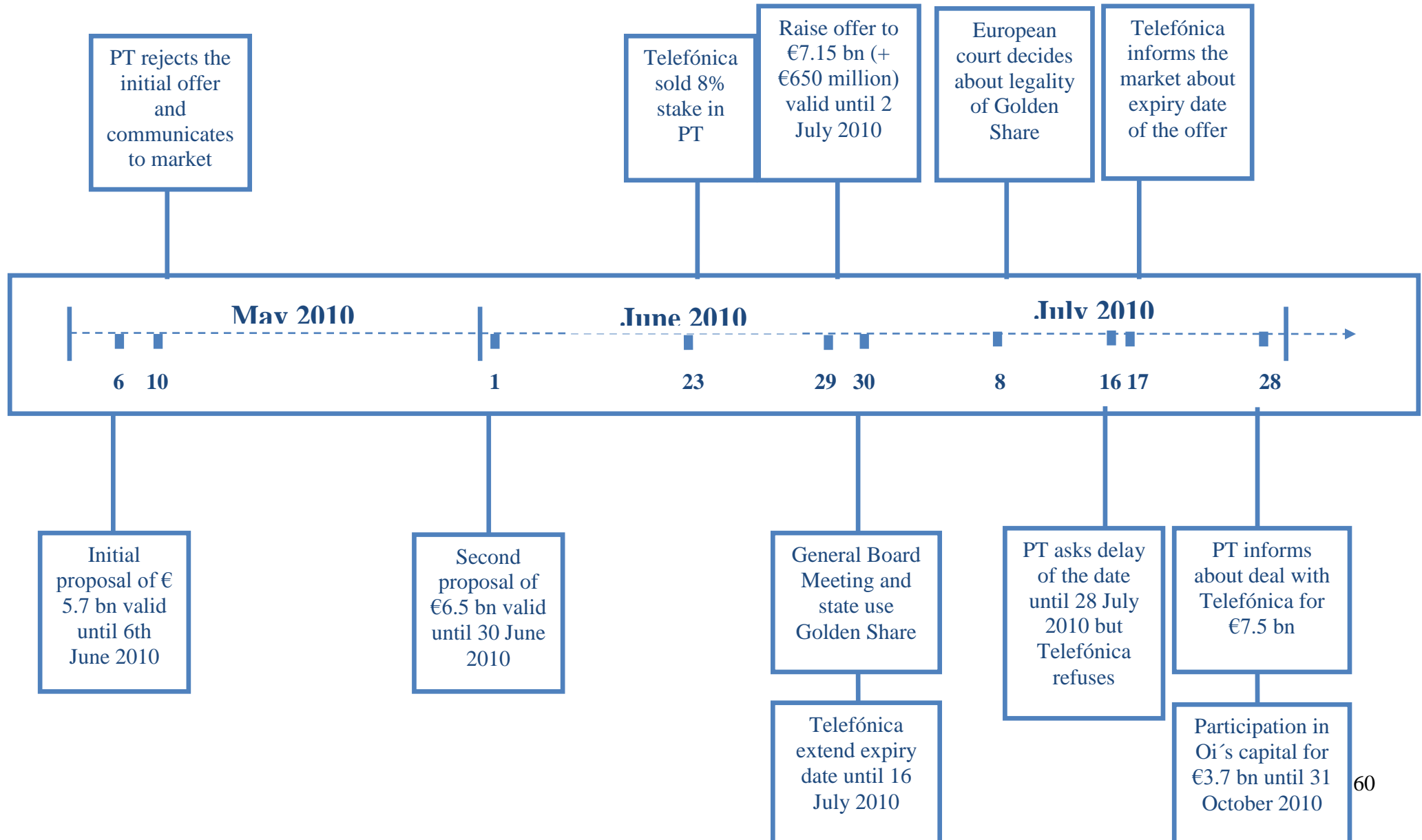


Source: Company's disclosed information

Note 1: Tickers in Bovespa and NYSE: TNE (TNLP4, TNLP3 and TNE); BRTO (BRT04, BRT03 and BTM), TMAR (TMAR5 and TMAR3)

Note 2: Currently 3%

Appendix XVI – Chronogram of events for Event Study analysis



Appendix XVII – PT/PSI-20 – Regression data

Event 1

Results Summary

PT/PSI20

Regression Statistics

Multiple R0,506232813

R Squared0,256271661

Adjusted R Squared0,253272757

Error0,016616185

Observations250

ANOVA

	gl	SQ	MQ	F	Significance F
Regression	1	0,023593945	0,02359394	85,45508982	1,12305E-17
Residual	248	0,068472203	0,0002761		
Total	249	0,092066148			

	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,00104741	0,001053917	0,99382554	0,321276481	-0,00102836	0,003123179	-0,00102836	0,003123179
	-0,022516081	0,854406439	0,092426295	9,24419222	1,12305E-17	0,672365863	1,036447015	0,672365863

Event 2

Results Summary		PT/PSI20						
Regression Statistics								
Multiple R	0,645898705							
R Squared	0,417185138							
Adjusted R Squared	0,414835078							
Error	0,017668349							
# Observations	250							
ANOVA								
	gl	SQ	MQ	F	Significance F			
Regression	1	0,055416852	0,055416852	177,5210633	6,56923E-31			
Residual	248	0,077418302	0,000312171					
Total	249	0,132835154						
	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,00110187	0,001117625	0,985903087	0,32514155	-0,001099377	0,003303117	-0,001099377	0,003303117
	-0,042658092	1,037797321	0,077891057	13,32370306	6,56923E-31	0,884384995	1,191209647	0,884384995

Event 3

Results Summary

PT/PSI20

Regression Statistics

Multiple R	0,63995531
R Squared	0,409542798
Adjusted R Squared	0,407161923
Error	0,018988403
# Observations	250

ANOVA

	gl	SQ	MQ	F	Significance F
Regression	1	0,062021	0,062021093	172,0135071	3,33443E-30
Residual	248	0,089419	0,000360559		
Total	249	0,15144			

	Coefficients	adron Errc	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%	
Intercept	0,001258677	0,001201	1,048051676	0,295635112	-0,001106721	0,003624074	-0,001106721	0,003624074	
	0,0016476	1,043720896	0,07958	13,11539199	3,33443E-30	0,88698237	1,200459422	0,88698237	1,200459422

Event 4

Results Summary		PT/PSI20						
Regression Statistics								
Multiple R	0,6419569							
R Squared	0,412108661							
Adjusted R Squared	0,409738132							
Error	0,018774651							
# Observations	250							
ANOVA								
	gl	SQ	MQ	F	Significance F			
Regression	1	0,061278782	0,061278782	173,846664	1,93715E-30			
Residual	248	0,087416908	0,000352488					
Total	249	0,14869569						
	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,000616891	0,00118768	0,519408879	0,603938883	-0,001722333	0,002956116	-0,001722333	0,002956116
	-0,00689359	1,028530143	0,078007048	13,18509249	1,93715E-30	0,874889364	1,182170921	0,874889364

Appendix XVIII – Telefónica/IBEX-35 – Regression data

Event 1

Results Summary

Telefónica /IBEX35

Regression Statistics	
R múltiplo	0,708590009
Quadrado de R	0,5020998
Quadrado de R ajustado	0,500092138
Erro-padrão	0,008262279
Observações	250

ANOVA					
	gl	SQ	MQ	F	Significance F
Regression	1	0,017072581	0,01707258	250,0917866	1,98527E-39
Residual	248	0,016929785	6,8265E-05		
Total	249	0,034002366			

	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,000218585	0,000524168	0,41701309	0,677029576	-0,000813803	0,001250973	-0,000813803	0,001250973
	-0,021308024	0,613451731	0,038790974	15,8142906	1,98527E-39	0,537049975	0,689853486	0,689853486

Event 2

Results Summary

Telefónica /IBEX35

Regression Statistics	
Multiple R	0,842246102
R Squared	0,709378496
Adjusted R Squared	0,708206635
Error	0,007850907
# Observations	250

ANOVA					
	gl	SQ	MQ	F	Significance F
Regression	1	0,037311403	0,037311403	605,3435992	1,70125E-68
Residual	248	0,01528591	6,16367E-05		
Total	249	0,052597313			

	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,00028533	0,000496698	0,57445477	0,566180797	-0,000692954	0,001263615	-0,000692954	0,001263615
	-0,066429466	0,714818688	0,029053263	24,60373141	1,70125E-68	0,65759609	0,772041287	0,65759609

Event 3

Results Summary		Telefónica /IBEX35							
Regression Statistics									
Multiple R	0,862779355								
R Squared	0,744388215								
Adjusted R Squared	0,743357523								
Error	0,007952119								
# Observations	250								
ANOVA									
	gl	SQ	MQ	F	Significance F				
Regression	1	0,045671	0,045670525	722,2213072	2,03147E-75				
Residual	248	0,015683	6,32362E-05						
Total	249	0,061353							
	Coefficients	adron Errc	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%	
Intercept	0,000447517	0,000503	0,889791072	0,374440394	-0,000543073	0,001438107	-0,000543073	0,001438107	
	0,01648581	0,736749679	0,027415	26,87417547	2,03147E-75	0,682754192	0,790745166	0,682754192	0,790745166

Event 4

Results Summary		Telefónica /IBEX35						
Regression Statistics								
Multiple R	0,875646062							
R Squared	0,766756026							
Adjusted R Squared	0,765815526							
Error	0,007848462							
# Observations	250							
ANOVA								
	gl	SQ	MQ	F	Significance F			
Regression	1	0,05021894	0,05021894	815,2643384	2,34377E-80			
Residual	248	0,015276391	6,15984E-05					
Total	249	0,065495331						
	Coefficients	Padron Error	Stat t	P Value	95% lower	95% upper	lower 95,0%	Upper 95,0%
Intercept	0,000173371	0,000496591	0,349122151	0,727293848	-0,000804702	0,001151444	-0,000804702	0,001151444
	0,001851942	0,752803952	0,026365297	28,55283416	2,34377E-80	0,700875506	0,804732397	0,804732397

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Appendix XX – Series of returns Equally Weighted for the Event study Analysis – Event 2

		Market Model		Market adjusted returns Model			Constant Mean adjusted returns Model			AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α
Event day	Date	PT	Telefónica	Tele-Ibex	PT-PSI	Soma	PT	Telefónica	Market Model						Market adjusted returns Model						Constant Mean adjusted returns Model						
10	15-06-2010	-4,095%	-5,465%	-0,4212%	2,5019%	2,0807%	2,546%	1,190%	-4,77967%	-3,03265	5%	-111,19801%	-3,33839	5%	1,04036%	0,569733	10%	7,463%	2,215699	5%	1,86806%	0,802731	10%	9,805%	2,504271	5%	
9	14-06-2010	-3,581%	-6,476%	0,2210%	-0,2779%	-0,0569%	0,262%	0,417%	-5,02839%	-3,19046	5%	-106,41834%	-3,1949	5%	-0,02844%	-0,01557	1%	6,422%	1,906806	10%	0,33936%	0,145827	10%	7,937%	2,027148	5%	
8	11-06-2010	-3,441%	-3,818%	-1,8989%	-0,7944%	-2,6932%	-0,120%	2,015%	-3,62976%	-2,30304	5%	-101,38995%	-3,04394	5%	-1,34662%	-0,73745	10%	6,451%	1,915249	10%	0,94752%	0,407163	10%	7,597%	1,940472	10%	
7	10-06-2010	-1,505%	-3,987%	-0,0065%	3,4251%	3,4186%	5,965%	3,671%	-2,74619%	-1,74243	10%	-97,76020%	-2,93496	5%	1,70931%	0,93607	10%	7,797%	2,315073	5%	4,81802%	2,070374	5%	6,650%	1,698465	10%	
6	09-06-2010	-3,714%	-5,003%	-2,0877%	-2,6171%	-4,7048%	-2,206%	0,169%	-4,35852%	-2,76544	5%	-95,01401%	-2,85252	5%	-2,35240%	-1,28825	10%	6,088%	1,807563	10%	-1,01844%	-0,43764	10%	1,832%	0,467887	10%	
5	08-06-2010	-5,439%	-7,663%	-0,0646%	2,5407%	2,4761%	1,290%	-1,529%	-6,55115%	-4,15663	5%	-90,65548%	-2,72166	5%	1,23803%	0,677986	10%	8,440%	2,506014	5%	-0,11980%	-0,05148	10%	2,850%	0,728008	10%	
4	07-06-2010	-4,672%	-7,669%	0,2961%	-0,8029%	-0,5067%	-1,314%	-1,177%	-6,17042%	-3,91506	5%	-84,10434%	-2,52499	5%	-0,25337%	-0,13875	10%	7,202%	2,13843	5%	-1,24569%	-0,53529	10%	2,970%	0,758606	10%	
3	04-06-2010	-6,545%	-9,362%	1,2559%	-1,1695%	0,0864%	-3,486%	-2,585%	-7,95316%	-5,04619	5%	-77,93392%	-2,33974	5%	0,04322%	0,023669	1%	7,456%	2,213659	5%	-3,03534%	-1,30433	10%	4,216%	1,07677	10%	
2	03-06-2010	-3,148%	-6,580%	0,6352%	-3,6077%	-2,9725%	-2,651%	0,686%	-4,86377%	-3,08601	5%	-69,98076%	-2,10097	5%	-1,48625%	-0,81392	10%	7,412%	2,200826	5%	-0,98236%	-0,42213	10%	7,251%	1,852031	10%	
1	02-06-2010	-4,939%	-6,887%	1,1366%	-1,9089%	-0,7722%	-2,677%	0,758%	-5,91257%	-3,75146	5%	-65,11699%	-1,95495	10%	-0,38612%	-0,21145	10%	8,899%	2,642109	5%	-0,95963%	-0,41237	10%	8,234%	2,102937	5%	
0	01-06-2010	-3,782%	-7,597%	0,7414%	8,0568%	8,7982%	8,403%	-0,631%	-5,68936%	-3,60983	5%	-59,20442%	-1,77744	10%	4,39911%	2,409095	5%	9,285%	2,756751	5%	3,88604%	1,669887	10%	9,193%	2,348038	5%	
-1	28-05-2010	-4,569%	-5,949%	-0,3070%	-0,8834%	-1,1904%	-1,296%	0,626%	-5,25894%	-3,33674	5%	-53,51506%	-1,60663	10%	-0,59521%	-0,32596	10%	4,886%	1,450609	10%	-0,33485%	-0,14389	10%	5,307%	1,3555	10%	
-2	27-05-2010	-0,556%	-4,332%	0,1283%	6,4468%	6,5751%	9,901%	3,323%	-2,44413%	-1,55077	10%	-48,25612%	-1,44875	10%	3,28754%	1,800364	10%	5,481%	1,627335	10%	6,61219%	2,841355	5%	5,642%	1,441024	10%	
-3	26-05-2010	-0,952%	-6,340%	-0,5612%	-1,4389%	-2,0001%	1,634%	-0,175%	-3,64575%	-2,31319	5%	-45,81199%	-1,37537	10%	-1,00007%	-0,54767	10%	2,193%	0,651229	10%	0,72973%	0,313575	10%	-0,970%	-0,24781	10%	
-4	25-05-2010	-7,116%	-8,825%	0,9732%	3,9675%	4,9407%	1,101%	-2,117%	-7,97054%	-5,05722	5%	-42,16624%	-1,26592	10%	2,47036%	1,352846	10%	3,193%	0,94816	10%	-0,50811%	-0,21834	10%	-1,700%	-0,43419	10%	
-5	24-05-2010	-4,283%	-7,550%	0,3390%	-2,1548%	-1,8158%	-2,292%	-0,968%	-5,91668%	-3,75407	5%	-34,19570%	-1,02663	10%	-0,90792%	-0,49721	10%	0,723%	0,214686	10%	-1,62986%	-0,70038	10%	-1,192%	-0,30441	10%	
-6	21-05-2010	-3,229%	-5,588%	-0,6719%	2,8336%	2,1617%	3,713%	0,766%	-4,40832%	-2,79703	5%	-28,27902%	-0,84899	10%	1,08087%	0,591917	10%	1,631%	0,484258	10%	2,23948%	0,962336	10%	0,438%	0,111877	10%	
-7	20-05-2010	-6,811%	-7,451%	1,2646%	-0,6073%	0,6573%	-3,180%	0,097%	-7,13118%	-4,52466	5%	-23,87070%	-0,71665	10%	0,32866%	0,179986	10%	0,550%	0,163337	10%	-1,54196%	-0,6626	10%	-1,801%	-0,46011	10%	
-8	19-05-2010	-6,259%	-8,507%	1,2845%	2,9140%	4,1985%	0,873%	-1,361%	-7,38316%	-4,68453	5%	-16,73951%	-0,50255	10%	2,09925%	1,149616	10%	0,221%	0,065754	10%	-0,24410%	-0,10489	10%	-0,259%	-0,06628	10%	
-9	18-05-2010	-3,674%	-4,014%	-0,1135%	-5,8002%	-5,9136%	-5,350%	3,526%	-3,84419%	-2,4391	5%	-9,35636%	-0,2809	10%	-2,95682%	-1,61925	10%	-1,878%	-0,55753	10%	-0,91199%	-0,3919	10%	-0,015%	-0,00393	1%	
-10	17-05-2010	-4,162%	-6,862%	1,8380%	0,3200%	2,1581%	0,300%	1,493%	-5,51217%	-3,49741	5%	-5,51217%	-0,16549	10%	1,07903%	0,59091	10%	1,079%	0,320375	10%	0,89660%	0,38528	10%	0,897%	0,229001	10%	

Appendix XXI – Series of returns Equally Weighted for the Event study Analysis – Event 3

		Market Model		Market adjusted returns Model			Constant Mean adjusted returns Model		AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α
Event day	Date	PT	Telefónica	Tele-Ibex	PT-PSI	Soma	PT	Telefónica	Market Model					Market adjusted returns Model					Constant Mean adjusted returns Model							
10	15-07-2010	0,229%	0,801%	0,5248%	2,9632%	3,4879%	2,876%	-0,684%	0,51474%	0,363912	10%	21,30084%	3,306928	5%	1,74397%	1,350288	10%	-1,22170%	-1,03601	10%	1,09621%	0,71064	10%	-0,53338%	-0,20541	10%
9	14-07-2010	-0,555%	1,785%	0,5719%	2,6161%	3,1880%	1,779%	0,699%	0,61514%	0,434894	10%	20,78610%	3,227015	5%	1,59402%	1,234192	10%	-2,96566%	-2,51491	5%	1,23895%	0,803174	10%	-1,62959%	-0,62756	10%
8	13-07-2010	0,272%	3,123%	-0,4639%	-1,0569%	-1,5207%	-1,102%	1,480%	1,69750%	1,200099	10%	20,17096%	3,131515	5%	-0,76037%	-0,58873	10%	-4,55968%	-3,86666	5%	0,18864%	0,122293	10%	-2,86853%	-1,10468	10%
7	12-07-2010	-0,018%	1,146%	0,3630%	-0,2048%	0,1583%	-0,528%	-0,377%	0,56376%	0,398566	10%	18,47346%	2,867981	5%	0,07913%	0,061268	10%	-3,79931%	-3,22185	5%	-0,45275%	-0,29351	10%	-3,05718%	-1,17733	10%
6	09-07-2010	-1,584%	1,991%	-0,2082%	-1,9874%	-2,1956%	-3,811%	0,198%	0,20326%	0,143698	10%	17,90971%	2,780458	5%	-1,09778%	-0,84997	10%	-3,87844%	-3,28896	5%	-1,80646%	-1,17107	10%	-2,60442%	-1,00297	10%
5	08-07-2010	1,104%	2,335%	0,2336%	-1,2647%	-1,0311%	-0,513%	1,108%	1,71962%	1,215738	10%	17,70645%	2,748903	5%	-0,51556%	-0,39918	10%	-2,78066%	-2,35803	5%	0,29743%	0,192813	10%	-0,79797%	-0,3073	10%
4	07-07-2010	1,844%	4,502%	-0,9398%	1,7874%	0,8477%	3,248%	2,875%	3,17299%	2,243248	5%	15,98683%	2,481934	5%	0,42383%	0,328153	10%	-2,26510%	-1,92083	10%	3,06179%	1,984871	10%	-1,09539%	-0,42184	10%
3	06-07-2010	2,875%	4,549%	-1,8267%	-1,3553%	-3,1819%	1,093%	2,052%	3,71217%	2,624434	5%	12,81384%	1,989331	10%	-1,59097%	-1,23183	10%	-2,68893%	-2,28024	5%	1,57297%	1,019711	10%	-4,15718%	-1,60095	10%
2	02-07-2010	1,004%	2,231%	-0,0365%	-0,8042%	-0,8408%	-0,148%	0,697%	1,61774%	1,143715	10%	9,10167%	1,413022	10%	-0,42038%	-0,32548	10%	-1,09796%	-0,93108	10%	0,27423%	0,177779	10%	-5,73015%	-2,2067	5%
1	01-07-2010	-0,520%	0,971%	-0,1657%	6,2006%	6,0349%	5,396%	-1,143%	0,22537%	0,159336	10%	7,48392%	1,161869	10%	3,01745%	2,336297	5%	-0,67758%	-0,57459	10%	2,12644%	1,378514	10%	-6,00438%	-2,31231	5%
0	30-06-2010	0,821%	2,477%	-0,1655%	-1,7251%	-1,8906%	-1,245%	0,901%	1,64879%	1,165661	10%	7,25855%	1,12688	10%	-0,94528%	-0,7319	10%	-3,69503%	-3,13342	5%	-0,17190%	-0,11144	10%	-8,13082%	-3,13121	5%
-1	29-06-2010	-2,625%	-2,367%	0,3176%	1,7837%	2,1013%	-1,037%	-5,191%	-2,49620%	-1,76476	10%	5,60976%	0,870908	10%	1,05063%	0,813463	10%	-2,74974%	-2,33181	5%	-3,11426%	-2,01889	5%	-7,95893%	-3,06501	5%
-2	28-06-2010	0,096%	2,835%	-0,2265%	-4,1011%	-4,3276%	-4,315%	1,326%	1,46551%	1,036088	10%	8,10596%	1,25844	10%	-2,16380%	-1,67535	10%	-3,80037%	-3,22275	5%	-1,49463%	-0,96893	10%	-4,84467%	-1,8657	10%
-3	25-06-2010	0,095%	1,253%	-0,0522%	0,9263%	0,8741%	0,711%	-0,647%	0,67395%	0,476473	10%	6,64045%	1,030921	10%	0,43707%	0,338409	10%	-1,63657%	-1,38783	10%	0,03211%	0,020816	1%	-3,35004%	-1,29011	10%
-4	24-06-2010	-2,193%	-0,583%	0,7263%	-2,1243%	-1,3980%	-4,532%	-2,361%	-1,38836%	-0,98154	10%	5,96650%	0,926291	10%	-0,69901%	-0,54122	10%	-2,07364%	-1,75847	10%	-3,44641%	-2,23421	5%	-3,38215%	-1,30248	10%
-5	23-06-2010	-0,789%	0,692%	0,1604%	2,3964%	2,5568%	1,335%	-1,196%	-0,04855%	-0,03432	10%	7,35485%	1,141831	10%	1,27838%	0,989804	10%	-1,37463%	-1,1657	10%	0,06917%	0,044843	10%	0,06426%	0,024746	1%
-6	22-06-2010	-0,235%	1,240%	0,1132%	1,0363%	1,1495%	0,505%	-0,499%	0,50256%	0,3553	10%	7,40340%	1,149368	10%	0,57474%	0,445003	10%	-2,65302%	-2,24978	5%	0,00310%	0,002007	1%	-0,00491%	-0,00189	1%
-7	21-06-2010	1,241%	2,388%	0,4010%	-2,2293%	-1,8283%	-1,346%	1,347%	1,81456%	1,28286	10%	6,90084%	1,071346	10%	-0,91413%	-0,70778	10%	-3,22776%	-2,73717	5%	0,00035%	0,000229	1%	-0,00801%	-0,00308	1%
-8	18-06-2010	2,745%	3,285%	-1,7724%	-1,7298%	-3,5022%	0,595%	0,391%	3,01533%	2,13178	5%	5,08628%	0,789638	10%	-1,75109%	-1,35581	10%	-2,31363%	-1,96198	10%	0,49291%	0,31954	10%	-0,00836%	-0,00322	1%
-9	17-06-2010	-0,129%	2,195%	0,1647%	0,1884%	0,3530%	-0,241%	0,848%	1,03310%	0,730385	10%	2,07095%	0,321513	10%	0,17652%	0,136669	10%	-0,56254%	-0,47704	10%	0,30370%	0,196879	10%	-0,50127%	-0,19304	10%
-10	16-06-2010	0,871%	1,205%	-0,8014%	-0,6767%	-1,4781%	-0,148%	-1,462%	1,03785%	0,733739	10%	1,03785%	0,161125	10%	-0,73905%	-0,57222	10%	-0,73905%	-0,62672	10%	-0,80497%	-0,52184	10%	-0,80497%	-0,31	10%

Appendix XXII – Series of returns Equally Weighted for the Event study Analysis – Event 4

		Market Model		Market adjusted returns Model			Constant Mean adjusted returns Model			AAR 01 α CAAR 02 α					AAR 01 α CAAR 02 α					AAR 01 α CAAR 02 α						
Event day	Date	PT	Telefónica	Tele-Ibex	PT-PSI	Soma	PT	Telefónica	Market Model					Market adjusted returns Model					Constant Mean adjusted returns Model							
10	12-08-2010	-0,665%	-0,050%	0,8474%	2,5548%	3,4022%	2,476%	0,474%	-0,35758%	-0,31727	10%	-4,64401%	-3,02225	5%	1,70110%	1,561253	10%	5,10660%	2,854523	5%	1,47490%	0,853496	10%	4,13481%	1,283152	10%
9	11-08-2010	-2,987%	-2,229%	1,1111%	-1,7450%	-0,6338%	-4,081%	-2,157%	-2,60783%	-2,31388	5%	-4,28643%	-2,78955	5%	-0,31691%	-0,29085	10%	3,40550%	1,903628	10%	-3,11890%	-1,80485	10%	2,65991%	0,825448	10%
8	10-08-2010	-1,302%	-0,470%	0,5801%	0,5071%	1,0872%	-0,190%	-0,352%	-0,88586%	-0,78601	10%	-1,67860%	-1,09241	10%	0,54358%	0,498894	10%	3,72240%	2,080773	5%	-0,27104%	-0,15685	10%	5,77881%	1,793332	10%
7	09-08-2010	0,610%	1,327%	-0,1037%	-0,4619%	-0,5656%	0,699%	1,351%	0,96833%	0,859181	10%	-0,79274%	-0,5159	10%	-0,28279%	-0,25954	10%	3,17882%	1,776918	10%	1,02523%	0,593284	10%	6,04985%	1,877444	10%
6	06-08-2010	-2,451%	-1,127%	0,6367%	2,1596%	2,7963%	0,345%	-1,167%	-1,78862%	-1,58701	10%	-1,76107%	-1,14608	10%	1,39814%	1,283193	10%	3,46161%	1,934993	10%	-0,41113%	-0,23791	10%	5,02461%	1,559284	10%
5	05-08-2010	-1,022%	0,162%	0,0304%	0,3234%	0,3539%	-0,102%	-0,061%	-0,42986%	-0,38141	10%	0,02755%	0,017927	1%	0,17693%	0,162383	10%	2,06347%	1,153453	10%	-0,08178%	-0,04732	10%	5,43574%	1,68687	10%
4	04-08-2010	-0,171%	-0,009%	0,2003%	0,4895%	0,6898%	0,892%	-0,120%	-0,09009%	-0,07994	10%	0,45741%	0,297675	10%	0,34490%	0,316546	10%	1,88654%	1,054553	10%	0,38598%	0,223357	10%	5,51752%	1,712248	10%
3	03-08-2010	-0,437%	0,435%	-0,9106%	-2,4542%	-3,3648%	-2,311%	-0,640%	-0,00066%	-0,00059	1%	0,54750%	0,356306	10%	-1,68241%	-1,54409	10%	1,54164%	0,861758	10%	-1,47520%	-0,85367	10%	5,13154%	1,592468	10%
2	02-08-2010	1,275%	2,591%	-0,4630%	1,2804%	0,8174%	3,088%	2,672%	1,93330%	1,715381	10%	0,54816%	0,356735	10%	0,40868%	0,375083	10%	3,22405%	1,802202	10%	2,88009%	1,666655	10%	6,60674%	2,050266	5%
1	30-07-2010	-1,186%	-0,943%	0,7317%	-0,0611%	0,6706%	-0,646%	-0,828%	-1,06434%	-0,94437	10%	-1,38514%	-0,90143	10%	0,33530%	0,307734	10%	2,81537%	1,573754	10%	-0,73702%	-0,4265	10%	3,72665%	1,156489	10%
0	29-07-2010	-1,354%	0,296%	3,0792%	1,0106%	4,0898%	0,262%	3,164%	-0,52945%	-0,46977	10%	-0,32080%	-0,20877	10%	2,04491%	1,876796	10%	2,48007%	1,386326	10%	1,71311%	0,991345	10%	4,46367%	1,385207	10%
-1	28-07-2010	0,345%	0,177%	0,7461%	1,3224%	2,0685%	2,226%	0,674%	0,26104%	0,231617	10%	0,20864%	0,135782	10%	1,03424%	0,949214	10%	0,43516%	0,243247	10%	1,44997%	0,839071	10%	2,75056%	0,853579	10%
-2	27-07-2010	0,576%	1,176%	-0,8234%	0,8608%	0,0374%	1,989%	0,432%	0,87614%	0,77738	10%	-0,05240%	-0,0341	10%	0,01872%	0,017185	1%	-0,59908%	-0,33488	10%	1,21031%	0,700383	10%	1,30059%	0,403611	10%
-3	26-07-2010	-0,134%	1,044%	-0,0822%	0,1302%	0,0480%	0,568%	0,997%	0,45481%	0,403549	10%	-0,92853%	-0,60428	10%	0,02400%	0,022031	1%	-0,61781%	-0,34535	10%	0,78242%	0,452771	10%	0,09028%	0,028017	10%
-4	23-07-2010	-1,203%	0,808%	-0,4529%	0,6910%	0,2381%	0,090%	0,314%	-0,19719%	-0,17496	10%	-1,38335%	-0,90026	10%	0,11904%	0,10925	10%	-0,64181%	-0,35877	10%	0,20160%	0,116663	10%	-0,69214%	-0,21479	10%
-5	22-07-2010	1,646%	2,150%	-0,5695%	1,4078%	0,8383%	3,576%	1,979%	1,89792%	1,683985	10%	-1,18616%	-0,77193	10%	0,41913%	0,384669	10%	-0,76085%	-0,42531	10%	2,77760%	1,607344	10%	-0,89374%	-0,27735	10%
-6	21-07-2010	-0,965%	0,032%	0,2038%	-4,8268%	-4,6230%	-5,196%	-0,061%	-0,46636%	-0,4138	10%	-3,08407%	-2,00707	5%	-2,31152%	-2,12149	5%	-1,17998%	-0,65959	10%	-2,62895%	-1,52132	10%	-3,67134%	-1,13932	10%
-7	20-07-2010	-0,187%	1,182%	-0,6824%	2,2251%	1,5427%	2,611%	0,580%	0,49738%	0,441318	10%	-2,61771%	-1,70357	10%	0,77133%	0,707918	10%	1,13155%	0,632519	10%	1,59574%	0,923424	10%	-1,04239%	-0,32348	10%
-8	19-07-2010	-1,056%	-0,281%	0,3634%	-0,3177%	0,0457%	-0,776%	-0,317%	-0,66836%	-0,59302	10%	-3,11509%	-2,02725	5%	0,02287%	0,020987	1%	0,36021%	0,201355	10%	-0,54668%	-0,31635	10%	-2,63813%	-0,81869	10%
-9	16-07-2010	-2,523%	-1,063%	0,0831%	-2,8964%	-2,8132%	-4,781%	-1,637%	-1,79301%	-1,59091	10%	-2,44673%	-1,5923	10%	-1,40662%	-1,29098	10%	0,33735%	0,188573	10%	-3,20888%	-1,85692	10%	-2,09145%	-0,64904	10%
-10	15-07-2010	-0,626%	-0,681%	0,5248%	2,9632%	3,4879%	2,922%	-0,688%	-0,65372%	-0,58003	10%	-0,65372%	-0,42543	10%	1,74397%	1,600592	10%	1,74397%	0,974854	10%	1,11742%	0,646633	10%	1,11742%	0,346769	10%

Appendix XXIII – Series of returns Market Value Weighted for the Event study Analysis – Event 1

		Market Cap PT t	Market Cap Telf t	Soma t	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α
Event day	Date				Market Model					Market adjusted returns Model					Constant Mean adjusted returns Model							
10	20-05-2010	7.952.065.875,00	68.140.467.521,05	76.092.533.396,05	-2,983%	-3,48299	5%	-62,690%	-3,38611	5%	-1,269%	-0,30247	10%	-15,721%	-2,97583	5%	0,091%	1,580521	10%	1,923%	3,388104	5%
9	19-05-2010	8.203.089.375,00	68.049.187.591,35	76.252.276.966,35	-2,988%	-3,48846	5%	-59,707%	-3,22497	5%	-2,534%	-0,60418	10%	-14,453%	-2,73569	5%	0,092%	1,585985	10%	1,831%	3,226977	5%
8	18-05-2010	8.122.403.250,00	68.961.986.888,35	77.084.390.138,35	-2,985%	-3,48453	5%	-56,718%	-3,06357	5%	3,350%	0,798706	10%	-11,918%	-2,256	5%	0,092%	1,582059	10%	1,739%	3,065293	5%
7	17-05-2010	8.570.659.500,00	66.588.708.716,15	75.159.368.216,15	-2,998%	-3,49993	5%	-53,734%	-2,90235	5%	-0,261%	-0,06213	10%	-15,268%	-2,89014	5%	0,092%	1,597462	10%	1,648%	2,90401	5%
6	14-05-2010	8.534.799.000,00	65.584.629.489,45	74.119.428.489,45	-3,000%	-3,50192	5%	-50,736%	-2,74042	5%	-6,369%	-1,5185	10%	-15,008%	-2,8408	5%	0,093%	1,599446	10%	1,555%	2,741156	5%
5	13-05-2010	8.893.404.000,00	69.418.386.536,85	78.311.790.536,85	-2,997%	-3,4991	5%	-47,736%	-2,57839	5%	-1,074%	-0,25599	10%	-8,639%	-1,63519	10%	0,092%	1,596628	10%	1,463%	2,5781	5%
4	12-05-2010	9.054.776.250,00	70.741.945.517,50	79.796.721.767,50	-2,997%	-3,49894	5%	-44,739%	-2,4165	5%	1,046%	0,24937	10%	-7,565%	-1,43195	10%	0,092%	1,596466	10%	1,371%	2,415332	5%
3	11-05-2010	8.481.008.250,00	70.285.545.869,00	78.766.554.119,00	-2,988%	-3,48862	5%	-41,742%	-2,25462	5%	-3,196%	-0,76194	10%	-8,611%	-1,62993	10%	0,092%	1,586153	10%	1,278%	2,252579	5%
2	10-05-2010	7.907.240.250,00	72.978.303.795,15	80.885.544.045,15	-2,973%	-3,471	5%	-38,753%	-2,09321	5%	14,073%	3,355211	5%	-5,415%	-1,02499	10%	0,091%	1,568525	10%	1,186%	2,090879	5%
1	07-05-2010	6.912.111.375,00	65.173.869.805,80	72.085.981.180,80	-2,970%	-3,46767	5%	-35,780%	-1,93261	10%	-3,245%	-0,77356	10%	-19,488%	-3,68887	5%	0,091%	1,565198	10%	1,096%	1,930975	10%
0	06-05-2010	7.190.030.250,00	66.816.908.540,40	74.006.938.790,40	-2,972%	-3,46992	5%	-32,810%	-1,77218	10%	-2,878%	-0,68614	10%	-16,243%	-3,07469	5%	0,091%	1,56745	10%	1,005%	1,77141	10%
-1	05-05-2010	7.718.972.625,00	68.414.307.310,15	76.133.279.935,15	-2,979%	-3,47745	5%	-29,838%	-1,61163	10%	-2,194%	-0,52317	10%	-13,366%	-2,52993	5%	0,091%	1,574978	10%	0,914%	1,611616	10%
-2	04-05-2010	7.898.275.125,00	69.646.586.361,10	77.544.861.486,10	-2,979%	-3,47828	5%	-26,859%	-1,45074	10%	-5,286%	-1,2603	10%	-11,171%	-2,11456	5%	0,091%	1,575808	10%	0,823%	1,451055	10%
-3	03-05-2010	8.328.601.125,00	72.339.344.287,25	80.667.945.412,25	-2,982%	-3,48075	5%	-23,879%	-1,28981	10%	-0,591%	-0,141	10%	-5,885%	-1,11394	10%	0,091%	1,578281	10%	0,732%	1,290409	10%
-4	30-04-2010	8.337.566.250,00	72.248.064.357,55	80.585.630.607,55	-2,982%	-3,48114	5%	-20,898%	-1,12877	10%	0,537%	0,12809	10%	-5,293%	-1,00199	10%	0,091%	1,578667	10%	0,641%	1,12951	10%
-5	29-04-2010	8.256.880.125,00	71.243.985.130,85	79.500.865.255,85	-2,982%	-3,48184	5%	-17,916%	-0,96771	10%	2,892%	0,689522	10%	-5,831%	-1,10369	10%	0,091%	1,579372	10%	0,550%	0,968573	10%
-6	28-04-2010	8.113.438.125,00	70.011.706.079,90	78.125.144.204,90	-2,982%	-3,48183	5%	-14,934%	-0,80661	10%	-2,881%	-0,6868	10%	-8,723%	-1,65114	10%	0,091%	1,57936	10%	0,458%	0,807563	10%
-7	27-04-2010	8.104.473.000,00	71.061.425.271,45	79.165.898.271,45	-2,980%	-3,4792	5%	-11,951%	-0,64552	10%	-4,310%	-1,02755	10%	-5,842%	-1,10585	10%	0,091%	1,576731	10%	0,367%	0,646555	10%
-8	26-04-2010	8.714.101.500,00	73.617.263.303,05	82.331.364.803,05	-2,985%	-3,48537	5%	-8,971%	-0,48455	10%	-0,163%	-0,03888	10%	-1,532%	-0,29003	10%	0,092%	1,582898	10%	0,276%	0,485815	10%
-9	23-04-2010	9.099.601.875,00	73.708.543.232,75	82.808.145.107,75	-2,992%	-3,49256	5%	-5,985%	-0,32329	10%	0,867%	0,206784	10%	-1,369%	-0,25916	10%	0,092%	1,590091	10%	0,184%	0,324446	10%
-10	22-04-2010	9.063.741.375,00	72.430.624.216,95	81.494.365.591,95	-2,994%	-3,49493	5%	-2,994%	-0,1617	10%	-2,236%	-0,53321	10%	-2,236%	-0,42334	10%	0,092%	1,592459	10%	0,092%	0,162344	10%

Appendix XXIV – Series of returns Market Value Weighted for the Event study Analysis – Event 2

		Market Cap PT t	Market Cap Telf t	Soma t	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α
Event day	Date				Market Model						Market adjusted returns Model						Constant Mean adjusted returns Model					
10	15-06-2010	9.664.404.750,00	71.517.824.919,95	81.182.229.669,95	-5,30145%	-6,64438	5%	-111,45789%	-3,38527	5%	1,472%	0,682441	10%	4,794%	1,675707	10%	0,047%	0,984191	10%	0,989%	3,378904	5%
9	14-06-2010	9.413.381.250,00	70.650.665.587,80	80.064.046.837,80	-5,30347%	-6,64691	5%	-106,15643%	-3,22425	5%	0,283%	0,131411	10%	3,322%	1,161166	10%	0,047%	0,981663	10%	0,941%	3,216752	5%
8	11-06-2010	9.377.520.750,00	70.331.185.833,85	79.708.706.583,85	-5,30337%	-6,64678	5%	-100,85296%	-3,06317	5%	3,580%	1,659989	10%	3,038%	1,062086	10%	0,047%	0,98179	10%	0,894%	3,055016	5%
7	10-06-2010	9.377.520.750,00	68.916.346.923,50	78.293.867.673,50	-5,30046%	-6,64313	5%	-95,54959%	-2,90209	5%	3,589%	1,663946	10%	-0,542%	-0,1895	10%	0,048%	0,98544	10%	0,847%	2,893259	5%
6	09-06-2010	8.839.613.250,00	66.451.788.821,60	75.291.402.071,60	-5,30370%	-6,6472	5%	-90,24914%	-2,7411	5%	2,087%	0,967718	10%	-4,131%	-1,44407	10%	0,047%	0,981375	10%	0,799%	2,730901	5%
5	08-06-2010	9.027.880.875,00	66.314.868.927,05	75.342.749.802,05	-5,30039%	-6,64305	5%	-84,94543%	-2,58001	5%	-1,391%	-0,64511	10%	-6,218%	-2,1737	5%	0,048%	0,985527	10%	0,752%	2,569213	5%
4	07-06-2010	8.902.369.125,00	67.318.948.153,75	76.221.317.278,75	-5,30454%	-6,64825	5%	-79,64505%	-2,41903	5%	-1,314%	-0,60901	10%	-4,827%	-1,68731	10%	0,047%	0,980329	10%	0,704%	2,40684	5%
3	04-06-2010	9.009.950.625,00	68.094.827.556,20	77.104.778.181,20	-5,30446%	-6,64815	5%	-74,34051%	-2,25792	5%	-3,615%	-1,67625	10%	-3,513%	-1,22813	10%	0,047%	0,980427	10%	0,657%	2,245324	5%
2	03-06-2010	9.323.730.000,00	69.874.786.185,35	79.198.516.185,35	-5,30326%	-6,64665	5%	-69,03605%	-2,09681	5%	0,205%	0,09499	10%	0,102%	0,035717	10%	0,047%	0,981925	10%	0,610%	2,083792	5%
1	02-06-2010	9.565.788.375,00	69.372.746.572,00	78.938.534.947,00	-5,29853%	-6,64072	5%	-63,73279%	-1,93573	10%	-0,378%	-0,17531	10%	-0,103%	-0,0359	10%	0,048%	0,987855	10%	0,562%	1,922013	10%
0	01-06-2010	9.816.811.875,00	68.825.066.993,80	78.641.878.868,80	-5,29353%	-6,63446	5%	-58,43426%	-1,7748	10%	-1,110%	-0,51456	10%	0,275%	0,096275	10%	0,048%	0,994119	10%	0,515%	1,759256	10%
-1	28-05-2010	9.045.811.125,00	69.235.826.677,45	78.281.637.802,45	-5,30624%	-6,65038	5%	-53,14073%	-1,61402	10%	0,825%	0,382346	10%	1,385%	0,484239	10%	0,047%	0,978198	10%	0,467%	1,595468	10%
-2	27-05-2010	9.153.392.625,00	68.779.427.028,95	77.932.819.653,95	-5,30364%	-6,64712	5%	-47,83449%	-1,45286	10%	3,273%	1,517325	10%	0,561%	0,19596	10%	0,047%	0,981456	10%	0,420%	1,434303	10%
-3	26-05-2010	8.319.636.000,00	66.543.068.751,30	74.862.704.751,30	-5,31229%	-6,65797	5%	-42,53085%	-1,29177	10%	0,732%	0,339365	10%	-2,712%	-0,94806	10%	0,047%	0,970606	10%	0,372%	1,272602	10%
-4	25-05-2010	8.176.194.000,00	66.634.348.681,00	74.810.542.681,00	-5,31481%	-6,66113	5%	-37,21856%	-1,13042	10%	-3,019%	-1,39969	10%	-3,444%	-1,20393	10%	0,047%	0,967447	10%	0,326%	1,112688	10%
-5	24-05-2010	8.077.577.625,00	68.049.187.591,35	76.126.765.216,35	-5,31918%	-6,6666	5%	-31,90375%	-0,969	10%	-1,136%	-0,52684	10%	-0,425%	-0,14861	10%	0,046%	0,961979	10%	0,279%	0,953294	10%
-6	21-05-2010	8.256.880.125,00	68.688.147.099,25	76.945.027.224,25	-5,31753%	-6,66453	5%	-26,58457%	-0,80744	10%	1,425%	0,660472	10%	0,711%	0,248614	10%	0,046%	0,964043	10%	0,233%	0,794801	10%
-7	20-05-2010	7.952.065.875,00	68.140.467.521,05	76.092.533.396,05	-5,32137%	-6,66935	5%	-21,26704%	-0,64594	10%	-1,269%	-0,5882	10%	-0,713%	-0,24936	10%	0,046%	0,95923	10%	0,186%	0,635968	10%
-8	19-05-2010	8.203.089.375,00	68.049.187.591,35	76.252.276.966,35	-5,31716%	-6,66407	5%	-15,94567%	-0,48431	10%	-2,534%	-1,17493	10%	0,555%	0,194123	10%	0,046%	0,964505	10%	0,140%	0,477928	10%
-9	18-05-2010	8.122.403.250,00	68.961.986.888,35	77.084.390.138,35	-5,32019%	-6,66786	5%	-10,62851%	-0,32282	10%	3,350%	1,553222	10%	3,089%	1,079984	10%	0,046%	0,960715	10%	0,093%	0,319019	10%
-10	17-05-2010	8.570.659.500,00	66.588.708.716,15	75.159.368.216,15	-5,30832%	-6,65299	5%	-5,30832%	-0,16123	10%	-0,261%	-0,12083	10%	-0,261%	-0,0911	10%	0,047%	0,975586	10%	0,047%	0,160735	10%

Appendix XXV – Series of returns Market Value Weighted for the Event study Analysis – Event 3

		Market Cap PT t	Market Cap Telf t	Soma t	%PT	% Telf	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α	AAR	01	α	CAAR	02	α
Event day	Date						Market Model					Market adjusted returns Model					Constant Mean adjusted returns Model							
10	15-07-2010	9.771.986.250,00	72.430.624.216,95	82.202.610.466,95	11,888%	88,112%	0,73265%	4,680239	5%	15,38503%	3,385186	5%	-1,00682%	-0,50346	10%	4,24627%	1,215643	10%	0,06857%	2,773247	5%	1,44015%	3,383225	5%
9	14-07-2010	9.485.102.250,00	72.887.023.865,45	82.372.126.115,45	11,515%	88,485%	0,73478%	4,693853	5%	14,65238%	3,223979	5%	0,08449%	0,042249	10%	5,25310%	1,503881	10%	0,06824%	2,759633	5%	1,37158%	3,22213	5%
8	13-07-2010	9.305.799.750,00	72.339.344.287,25	81.645.144.037,25	11,398%	88,602%	0,73545%	4,698129	5%	13,91760%	3,062304	5%	1,78494%	0,892559	10%	5,16861%	1,479693	10%	0,06813%	2,755356	5%	1,30334%	3,061827	5%
7	12-07-2010	9.395.451.000,00	71.243.985.130,85	80.639.436.130,85	11,651%	88,349%	0,73400%	4,688877	5%	13,18215%	2,900482	5%	-0,62326%	-0,31166	10%	3,38366%	0,968691	10%	0,06836%	2,764609	5%	1,23521%	2,901772	5%
6	09-07-2010	9.431.311.500,00	71.472.184.955,10	80.903.496.455,10	11,657%	88,343%	0,73397%	4,688647	5%	12,44814%	2,738978	5%	0,21481%	0,107414	10%	4,00692%	1,147121	10%	0,06837%	2,764839	5%	1,16685%	2,74118	5%
5	08-07-2010	9.789.916.500,00	71.289.625.095,70	81.079.541.595,70	12,074%	87,926%	0,73158%	4,673417	5%	11,71417%	2,577482	5%	0,92826%	0,464177	10%	3,79212%	1,085625	10%	0,06874%	2,780069	5%	1,09848%	2,580574	5%
4	07-07-2010	9.825.777.000,00	70.468.105.728,40	80.293.882.728,40	12,237%	87,763%	0,73065%	4,66747	5%	10,98259%	2,416511	5%	3,59602%	1,798188	10%	2,86385%	0,819878	10%	0,06889%	2,786015	5%	1,02974%	2,419084	5%
3	06-07-2010	9.503.032.500,00	68.459.947.275,00	77.962.979.775,00	12,189%	87,811%	0,73093%	4,669227	5%	10,25193%	2,255744	5%	3,77362%	1,886993	10%	-0,73217%	-0,20961	10%	0,06885%	2,784258	5%	0,96085%	2,257248	5%
2	02-07-2010	9.386.485.875,00	67.045.108.364,65	76.431.594.239,65	12,281%	87,719%	0,73040%	4,665877	5%	9,52101%	2,094917	5%	0,79263%	0,396352	10%	-4,50579%	-1,28994	10%	0,06893%	2,787609	5%	0,89201%	2,095514	5%
1	01-07-2010	9.386.485.875,00	66.543.068.751,30	75.929.554.626,30	12,362%	87,638%	0,72994%	4,662911	5%	8,79060%	1,934205	10%	-0,88718%	-0,44363	10%	-5,29841%	-1,51685	10%	0,06900%	2,790575	5%	0,82308%	1,933586	10%
0	30-06-2010	8.893.404.000,00	67.273.308.188,90	76.166.712.188,90	11,676%	88,324%	0,73386%	4,687962	5%	8,06066%	1,773596	10%	1,06648%	0,533295	10%	-4,41124%	-1,26287	10%	0,06838%	2,765524	5%	0,75408%	1,771485	10%
-1	29-06-2010	8.992.020.375,00	66.634.348.681,00	75.626.369.056,00	11,890%	88,110%	0,73264%	4,680152	5%	7,32680%	1,612124	10%	-5,12051%	-2,56051	5%	-5,47772%	-1,56819	10%	0,06858%	2,773334	5%	0,68569%	1,610839	10%
-2	28-06-2010	9.072.706.500,00	70.239.905.904,15	79.312.612.404,15	11,439%	88,561%	0,73522%	4,696621	5%	6,59416%	1,45092	10%	1,41821%	0,709174	10%	-0,35721%	-0,10226	10%	0,06817%	2,756865	5%	0,61712%	1,44974	10%
-3	25-06-2010	9.467.172.000,00	69.281.466.642,30	78.748.638.642,30	12,022%	87,978%	0,73188%	4,675332	5%	5,85894%	1,28915	10%	-0,48065%	-0,24035	10%	-1,77542%	-0,50828	10%	0,06869%	2,778153	5%	0,54895%	1,289598	10%
-4	24-06-2010	9.386.485.875,00	69.692.226.325,95	79.078.712.200,95	11,870%	88,130%	0,73275%	4,680892	5%	5,12706%	1,128112	10%	-2,93811%	-1,4692	10%	-1,29477%	-0,37067	10%	0,06856%	2,772594	5%	0,48025%	1,128218	10%
-5	23-06-2010	9.816.811.875,00	71.335.265.060,55	81.152.076.935,55	12,097%	87,903%	0,73146%	4,672601	5%	4,39431%	0,966884	10%	-1,25229%	-0,62621	10%	1,64334%	0,470463	10%	0,06876%	2,780885	5%	0,41170%	0,967162	10%
-6	22-06-2010	9.673.369.875,00	72.156.784.427,85	81.830.154.302,85	11,821%	88,179%	0,73303%	4,682664	5%	3,66285%	0,80594	10%	-0,53383%	-0,26694	10%	2,89563%	0,828975	10%	0,06851%	2,770821	5%	0,34293%	0,805624	10%
-7	21-06-2010	9.610.614.000,00	72.476.264.181,80	82.086.878.181,80	11,708%	88,292%	0,73368%	4,686807	5%	2,92982%	0,644651	10%	1,00703%	0,503563	10%	3,42946%	0,981803	10%	0,06841%	2,766679	5%	0,27442%	0,644671	10%
-8	18-06-2010	9.727.160.625,00	71.472.184.955,10	81.199.345.580,10	11,979%	88,021%	0,73213%	4,67689	5%	2,19614%	0,483218	10%	2,25149%	1,125857	10%	2,42244%	0,693507	10%	0,06866%	2,776595	5%	0,20601%	0,483958	10%
-9	17-06-2010	9.655.439.625,00	71.152.705.201,15	80.808.144.826,15	11,949%	88,051%	0,73230%	4,678014	5%	1,46401%	0,322127	10%	0,61929%	0,309678	10%	0,17094%	0,048939	10%	0,06863%	2,775472	5%	0,13735%	0,32267	10%
-10	16-06-2010	9.664.404.750,00	70.513.745.693,25	80.178.150.443,25	12,054%	87,946%	0,73170%	4,674176	5%	0,73170%	0,160997	10%	-0,44835%	-0,2242	10%	-0,44835%	-0,12836	10%	0,06872%	2,779309	5%	0,06872%	0,161446	10%

Appendix XXVI – Series of returns Market Value Weighted for the Event study Analysis – Event 4

		Market Cap PT t	Market Cap Telf t	Soma t	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α	AAR	θ1	α	CAAR	θ2	α
Event day	Date				Market Model						Market adjusted returns Model						Constant Mean adjusted returns Model					
10	12-08-2010	9.987.149.250,00	77.177.180.561,35	87.164.329.811,35	-0,12041%	-1,17497	10%	-2,52465%	-3,39114	5%	-0,27383%	-0,18767	10%	0,83154%	0,287841	10%	0,70311%	2,108433	5%	14,75258%	3,388177	5%
9	11-08-2010	9.736.125.750,00	76.766.420.877,70	86.502.546.627,70	-0,11916%	-1,16281	10%	-2,40424%	-3,22941	5%	-3,09712%	-2,12265	5%	1,10537%	0,382628	10%	0,69906%	2,096271	5%	14,04946%	3,226695	5%
8	10-08-2010	10.139.556.375,00	78.409.459.612,30	88.549.015.987,30	-0,12037%	-1,17455	10%	-2,28508%	-3,06935	5%	-0,83881%	-0,57489	10%	4,20249%	1,454703	10%	0,70297%	2,108009	5%	13,35040%	3,066144	5%
7	09-08-2010	10.148.521.500,00	78.637.659.436,55	88.786.180.936,55	-0,12024%	-1,17332	10%	-2,16471%	-2,90767	5%	1,48736%	1,019385	10%	5,04129%	1,745058	10%	0,70256%	2,106779	5%	12,64743%	2,904695	5%
6	06-08-2010	10.067.835.375,00	77.542.300.280,15	87.610.135.655,15	-0,12062%	-1,177	10%	-2,04447%	-2,74616	5%	-1,73914%	-1,19195	10%	3,55393%	1,230203	10%	0,70379%	2,110462	5%	11,94487%	2,743339	5%
5	05-08-2010	10.023.009.750,00	78.409.459.612,30	88.432.469.362,30	-0,11965%	-1,16754	10%	-1,92386%	-2,58415	5%	-0,06364%	-0,04362	10%	5,29308%	1,832212	10%	0,70064%	2,101002	5%	11,24108%	2,581702	5%
4	04-08-2010	10.023.009.750,00	78.409.459.612,30	88.432.469.362,30	-0,11965%	-1,16754	10%	-1,80421%	-2,42343	5%	-0,17204%	-0,11791	10%	5,35672%	1,854242	10%	0,70064%	2,101002	5%	10,54044%	2,420789	5%
3	03-08-2010	9.924.393.375,00	78.455.099.577,15	88.379.492.952,15	-0,11900%	-1,16125	10%	-1,68456%	-2,26272	5%	0,32253%	0,221049	10%	5,52875%	1,913793	10%	0,69854%	2,09471	5%	9,83980%	2,259876	5%
2	02-08-2010	10.148.521.500,00	78.911.499.225,65	89.060.020.725,65	-0,12002%	-1,1712	10%	-1,56556%	-2,10288	5%	3,04969%	2,090152	5%	5,20622%	1,802149	10%	0,70186%	2,104669	5%	9,14127%	2,099445	5%
1	30-07-2010	9.834.742.125,00	76.812.060.842,55	86.646.802.967,55	-0,11975%	-1,16852	10%	-1,44553%	-1,94166	10%	-1,38295%	-0,94783	10%	2,15653%	0,746489	10%	0,70096%	2,101981	5%	8,43941%	1,938251	10%
0	29-07-2010	9.888.532.875,00	77.405.380.385,60	87.293.913.260,60	-0,11961%	-1,16716	10%	-1,32579%	-1,78081	10%	0,05671%	0,038869	10%	3,53948%	1,225201	10%	0,70051%	2,100628	5%	7,73844%	1,777263	10%
-1	28-07-2010	9.852.672.375,00	74.986.462.248,55	84.839.134.623,55	-0,12137%	-1,18431	10%	-1,20618%	-1,62015	10%	0,10762%	0,073759	10%	3,48277%	1,20557	10%	0,70623%	2,117772	5%	7,03793%	1,616379	10%
-2	27-07-2010	9.628.544.250,00	74.438.782.670,35	84.067.326.920,35	-0,12038%	-1,1747	10%	-1,08481%	-1,45713	10%	1,30647%	0,895405	10%	3,37515%	1,168317	10%	0,70303%	2,108165	5%	6,33170%	1,454182	10%
-3	26-07-2010	9.431.311.500,00	74.073.662.951,55	83.504.974.451,55	-0,11940%	-1,16515	10%	-0,96443%	-1,29543	10%	1,07283%	0,735281	10%	2,06868%	0,71608	10%	0,69984%	2,098614	5%	5,62868%	1,29272	10%
-4	23-07-2010	9.368.555.625,00	73.297.783.549,10	82.666.339.174,10	-0,11964%	-1,16747	10%	-0,84503%	-1,13505	10%	0,67752%	0,464345	10%	0,99585%	0,344716	10%	0,70061%	2,100935	5%	4,92884%	1,13199	10%
-5	22-07-2010	9.350.625.375,00	73.023.943.760,00	82.374.569.135,00	-0,11975%	-1,16857	10%	-0,72539%	-0,97435	10%	2,57173%	1,762574	10%	0,31834%	0,110193	10%	0,70098%	2,102039	5%	4,22822%	0,971082	10%
-6	21-07-2010	9.018.915.750,00	71.563.464.884,80	80.582.380.634,80	-0,11877%	-1,15902	10%	-0,60563%	-0,81349	10%	-0,21089%	-0,14454	10%	-2,25340%	-0,78002	10%	0,69779%	2,09248	5%	3,52724%	0,81009	10%
-7	20-07-2010	9.503.032.500,00	71.563.464.884,80	81.066.497.384,80	-0,12204%	-1,19086	10%	-0,48686%	-0,65395	10%	1,22627%	0,840441	10%	-2,04251%	-0,70702	10%	0,70841%	2,124326	5%	2,82945%	0,64983	10%
-8	19-07-2010	9.252.009.000,00	71.107.065.236,30	80.359.074.236,30	-0,12075%	-1,1783	10%	-0,36482%	-0,49003	10%	-0,58918%	-0,4038	10%	-3,26878%	-1,1315	10%	0,70423%	2,111765	5%	2,12103%	0,48713	10%
-9	16-07-2010	9.314.764.875,00	71.289.625.095,70	80.604.389.970,70	-0,12101%	-1,18087	10%	-0,24407%	-0,32784	10%	-1,67277%	-1,14646	10%	-2,67960%	-0,92755	10%	0,70508%	2,114336	5%	1,41681%	0,325393	10%
-10	15-07-2010	9.771.986.250,00	72.430.624.216,95	82.202.610.466,95	-0,12305%	-1,20078	10%	-0,12305%	-0,16529	10%	-1,00682%	-0,69004	10%	-1,00682%	-0,34852	10%	0,71172%	2,134244	5%	0,71172%	0,163459	10%