Master Thesis presented as part of the requirements for the award of a

Master’s degree in finance from the NOVA School of Business and Economics

Pharol: A Fused light?

João Afonso Murteira Dória, 3971

Master Thesis carried out under the supervision of
Professor Paulo Soares de Pinho, PhD

Abstract

Throughout the years, Portugal Telecom – SGPS, SA ("PT") was used as an instrument of the few, culminating with the €897Mn investment in commercial paper issued by Rio Forte Investments, SA ("Rio Forte"), which defaulted soon after. Since then, PT became a small fraction of its past, just waiting to turn the lights off. This Master Thesis will demonstrate PT's fate was not inevitable, as revisiting the terms of the merger with Oi, SA ("Oi") was more an option than a given, alternative investment structures would have limited losses, while asset monetization would have allowed regaining PT's long-anticipated ambitions.

Keywords: Asset Value, Default, Option

Table of Contents

PT and Rio Forte Relationship Overview

PT: From Transatlantic Ambitions to Turning the Lights Off

PT was originally established in 1992 to manage the telecommunication services provided by CTT – Correios de Portugal, SA ("CTT") until then – with the spin-off[1] of the telecommunication division, the latter would become fully dedicated to postal services, until its privatization in 2013[i]. As an anticipation to the privatization process initiated in 1996, PT merged with Telecomunicações de Lisboa e Porto, SA ("TLP") and Teledifusora de Portugal, SA ("TDP") in 1994, marking the birth of a telecommunications monopoly in Portugal[ii]. From 1996 to the early 2000s, PT underwent a gradual privatization process across five phases[iii], as the Portuguese government progressively reduced its stake in the Company (Magalhães, 2016), while maintaining controlling rights through Golden Shares[2].

Meanwhile, PT formalized its intention to build a transatlantic telecommunications operator by expanding internationally to Africa and Brazil (Vasconcelos, 2008), with the first step taken through the acquisition of Telesp Celular, SA ("Telesp") in 1998[iv], which would later evolve into the cornerstone of Vivo Participações, SA[3] ("Vivo"). To enable the execution of its long-term vision and strengthen its position throughout forthcoming technological revolution, PT

[1] With this corporate reorganization format, the Government of Portugal would retain the sole ownership of both PT and CTT

[2] Golden shares traditionally give Governments veto rights over significant corporate decisions. Scope can include provisions as the move of corporate headquarters (i.e. decision center), asset disposal, capital structure changes, among other (Damodaran). In 2002 the European Court of Justice ruled against the Golden Share regimes in Europe as it breached Single Market's free movement principle (Thomson Reuters Practical Law, Clearly Gottlieb Steen & Hamilton). As part of the €78Bn EU-IMF support package, Golden Shares held by the Government of Portugal in EDP – Energias de Portugal, SA ("EDP"), Galp Energia, SA ("Galp") and PT were ended in 2011 (https://sicnoticias.pt/arquivo/portugal2011/2011-07-05-fim-das-golden-share-do-estado-na-edp-galp-energia-e-pt)

[3] In the same auction as PT bid for Telesp, Telefonica, SA ("Telefonica") bought the fixed line division of Telecomunicações de São Paulo, SA ("Telesp"), and a sequence of mobile operators (https://pt.wikipedia.org/wiki/Vivo). Already under the leadership of Miguel Horta e Costa, the assets acquired by both PT and Telefonica were later used as asset contribution to a Joint-Venture with Telefonica named Vivo, which soon became the largest mobile operator in Brazil

developed strategic partnerships domestically, namely with Banco Espírito Santo, SA ("BES") and Caixa Geral de Depósitos, SA ("CGD")[4].

A major turning point came in 2006, when Sonaecom – SGPS, SA ("Sonaecom"), a subsidiary of Sonae SGPS, SA ("Sonae"), launched a takeover bid over PT at €9,5/share[5] (16% premium over the previous day's closing price[v]), and PT Multimédia, SA ("PTM"), the media division of PT, at €9.0 per share (7% discount to market price). The offer was swiftly rejected by Miguel Horta e Costa[vi], but it was already under Henrique Granadeiro's mandate[6], that the Board was able to gather the required shareholder support[vii] to confirm its decision[viii]. Notwithstanding the successful takeover defence (Vasconcelos, 2008), it came with a financial[7] and independence cost[8] to PT, while cash distribution seemed to become an apparent source of value creation thereafter[9].

---

[4] In 2000, as part of the "Nova Economia" partnership, PT announced the €102Mn equity investment in BES. As part of the partnership agreement, which could be extended to the Brazilian market, BES was expected to hold a 6% stake in PT (CGD already had a 2% stake, which could be increased). BES and CGD were expected to retain a 5% combined equity stake in PT Prime, SA ("PT Prime") (https://www.jornaldenegocios.pt/empresas/detalhe/portugal_telecom_adquire_3_do_bes_por_102_milhoes_de_euros). In 2002, Miguel Horta e Costa, a former BES Board Member is named PT CEO, signalling deepening ties between PT and BES (https://pt.wikipedia.org/wiki/Miguel_Horta_e_Costa)

[5] The offer was conditional to meeting certain objectives, including the removal of the 10% voting cap (required the support of 2/3 majority), abolition of the Golden Share, and acquisition of at least 50.01% of the outstanding shares. Sonaecom would retain the right to squeeze-out remaining minority shareholders in the event it managed to buy +90% of the outstanding shares (https://sonaecom.pt/2014/07/31/651f75c713b50c39f9dbdf8693efcafa77aca9ff/651f75c713b50c39f9dbdf8693efcafa77aca9ff.pdf?download=1). To support the takeover, Sonaecom disclosed financing from Banco Santander and committed to injecting up to €1.5 billion in new capital (https://sonaecom.pt/2014/07/31/87b32dc313a5a85d05bd5560e8bf47d8ed8d78c8/87b32dc313a5a85d05bd5560e8bf47d8ed8d78c8.pdf?download=1)

[6] On April 21, 2006, Henrique Granadeiro, a close friend of Ricardo Salgado, was appointed Chairman and CEO during the ordinary general shareholder meeting, succeeding Miguel Horta e Costa who moved to BESI (https://www.publico.pt/2006/03/03/economia/noticia/henrique-granadeiro-devera-ser-presidente-executivo-e-chairman-da-portugal-telecom-1249554)

[7] PT agreed to distribute the equivalent to €5,15Bn to shareholders through a combination of cash dividends and PTM shares (https://www.jornaldenegocios.pt/empresas/detalhe/pt_aprova_dividendo_extraordinario_de_19_mil_milhoes_de_euros). It also invested €19Mn in new BES capital increase (Vasconcelos, 2008). Not long after the confirmation of the failed bid, PTM acquired Bragatel from Partifel, owned by Joe Berardo, at 12x EBITDA (https://www.rtp.pt/noticias/economia/pt-multimedia-acordou-com-partifel-aquisicao-de-100-da-bragatel_n86460), PT Pension Funds are said to have invested €75Mn in Ongoing PE (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf), and Ongoing became a relevant supplier of PT (https://www.jornaldenegocios.pt/empresas/detalhe/ongoing_passa_a_constar_da_lista_de_fornecedores_da_portugal_telecom)

[8] New Board composition included members linked to the Socialist Party (i.e. Rui Pedro Soares named Executive and Armando Vara as Non-Executive) and BES (e.g. Amílcar Morais Pires joined the Board). Additionally, Controlinveste (https://cnnportugal.iol.pt/lusomundo/bes/joaquim-oliveira-mais-perto-de-entrar-na-pt), Ongoing and Joe Berardo (https://www.jornaldenegocios.pt/empresas/detalhe/monteiro_de_barros_sai_da_pt_accionista_do_grupo_bes_reforca) equity stakes seems to have been financed with funds from BES (direct and indirect influence moved from 8,36% in 2006, to 16,90% in 2009, not subject to the 10% voting cap)

[9] The reference to dividends became recurrent in PT Annual Report (62 references in 2009, 96 references in 2010 and 2011, 90 references in 2012), irrespective of its financial performance (Net Debt moved from €4,3Bn in 2007 to €7,7Bn in 2012, while Market Cap and Operating Cash-Flow almost halved) and market context (on top of the EU-IMF support package, PT became sub-investment grade). Some of the shareholders backing PT defence strategy were said to be highly indebted (https://cnnportugal.iol.pt/lusomundo/bes/joaquim-oliveira-mais-perto-de-entrar-na-pt) and potentially requiring cash dividends regular payment

During the 2006/2007 failed takeover process, it was made public that Telefonica, SA ("Telefonica") as PT shareholder with 10% equity stake[ix], was supportive of the Sonaecom bid[x] and open to buy the remaining 50% stake in Vivo[xi]. Therefore, it was without surprise that Telefonica presented a €5,7Bn[xii] updated offer to PT in early 2010 (after a failed attempt to buy Promotora de Informaciones, SA ("Prisa"))[10]. The offer was initially rejected, but following a series of price upward revisions, PT stake ended being sold for €7,5Bn[xiii], but not without Telefonica threatening to launch a hostile takeover bid over PT[xiv] first. Under the argument that PT had to maintain its presence in Brazil[11], almost immediately, it was announced the €3,8Bn investment[12] in the acquisition of a 23% equity stake in Oi SA ("Oi")[xv], an operator struggling with high debt, declining margins and lack of operational scale (Martins, 2013), and new dividend payments to shareholders[13].

By mid-2013, the then PT CEO[14] was also named CEO of Oi[xvi], paving the way to the full corporate merger that would be announced in October[xvii] and subject to Memorandum of Understanding ("MoU")[xviii]. Under this agreement, through the €1,8Bn asset contribution to Oi's €4,5Bn capital increase, PT was expected to increase its overall position from the 23% stake to about 40% of the merged entity[xix]. As the MoU implementation progressed[15], BES

[10] Parent Company of Media Capital, SA ("Media Capital"), PT's main content provider. The successful completion of the envisaged transaction would likely put additional pressure over PT. To block the rumoured transaction and in partnership with Ongoing and Controlinveste, PT tried to buy Media Capital (https://expresso.pt/economia/pt-negoceia-compra-da-tvi-e-ongoing-esta-fora=f522379) with the apparent support from the Government of Portugal (https://www.publico.pt/2010/06/11/politica/noticia/relatorio-pttvi-primeiroministro-mentiu-ao-parlamento-1441488). Ongoing managed to buy a 35% equity stake (https://www.rtp.pt/noticias/economia/ongoing-compra-35-por-cento-da-media-capital_n282699)

[11] Political influence suggested the usage of the Golden Share, unless PT maintained its presence in Brazil (https://tvi.iol.pt/noticias/economia/negocios/socrates-telefonica-falhou-ao-desconsiderar-governo)

[12] The lion share of the remaining cash proceeds resulting from the sale of Vivo equity stake, on top of recurring CAPEX needs (according to PT Annual Reports, CAPEX totalled €3,9Bn from 2010 to 2013, equivalent to 50% EBITDA), seems to have been allocated to non-operating investments, namely dividend payments (€3,3Bn paid from 2010 to 2013, equivalent to 1,1x Operating Cash-Flow[12]) and €510Mn cash committed to commercial paper issued by Espírito Santo International, SA ("ESInt")

[13] With the sale of Vivo, Telefonica decreased its equity stake in PT from 10% to just 2% by 2010. The Golden Share ended in 2011, while CGD retained its 6% stake until 2011. With these changes, BES managed to gain increased influence as it became the largest shareholder with 10% equity stake (https://tvi.iol.pt/noticias/economia/negocios/bes-passou-a-maior-accionista-da-pt-com-10-07-do-capital), later increased to 11% (as per Annex VIII). In 2011, through RS Holding, Ongoing also increased its stake in PT to 10% (as per Annex VIII)

[14] Henrique Granadeiro acted as Chairman and CEO through the Sonaecom takeover bid. In 2008 Zeinal Bava is nominated PT CEO, while Henrique Granadeiro remained as Chairman (https://www.jornaldenegocios.pt/empresas/detalhe/zeinal_bava_passa_a_ceo_da_pt_apos_ag_de_2008)

[15] In February 2014, PT launched a Consent Solicitation requesting debtholders' approval to move outstanding bond issues and other debt instruments to PT-Oi merger perimeter (https://pharol.pt/cdn/frontend/webpage/1443-pt-portugal-telecom-consent-solicitation-1715859344.pdf). In May 2014, Oi successfully completed its €4,5Bn capital increase (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

moved into the spotlight[16] and Grupo Espírito Santo ("GES") long-anticipated financial difficulties became public[xx]. It was then disclosed that PT had invested a staggering €897Mn in short-term commercial paper issued by Rio Forte[xxi]. Shortly after, Rioforte defaulted on the repayment[xxii], and the fallout of the broader BES/GES was almost immediate[17]. Throughout the sequence of events that followed Rio Forte's default, both PT and Oi[18] confirmed its commitment to the transaction[xxiii], but terms needed to be revised[xxiv], and accusations that PT's executive team had failed to notify shareholders of the risks tied to Rioforte, despite clear red flags[xxv], started to emerge. Not surprisingly, Luís Pacheco de Melo (CFO) left PT Portugal[xxvi], followed by Henrique Granadeiro (Chairman)[xxvii] and Zeinal Bava (CEO of PT-Oi merged entity)[xxviii] one month later, leaving a leadership vacuum[19] at a critical time as investors trust evaporated, credit access dried[xxix] and Portuguese regulators[xxx, xxxi], including the CMVM[xxxii], opened investigations into governance failures (Magalhães, 2016).

With the MoU revised terms[xxxiii] and conclusion of the merger process[xxxiv], PT was effectively reduced to a holding vehicle for the impaired Rioforte assets and a minority stake in Oi – without operational business, or Board influence[20]. In December 2014, the operational business

[16] In September 2013, the Bank of Portugal initiated BES ringfencing to GES. Three months later, KPMG and PWC confirmed the setup of €700Mn provision to cover Espírito Santo Financial Group, SA ("ESFG") potential losses ((https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1544&context=journal-of-financial-crises). It later became public that the Bank of Portugal communicated the risk of BES becoming insolvent to Ricardo Salgado (https://cnnportugal.iol.pt/economia/banco-de-portugal/bdp-avisou-salgado-em-dezembro-para-risco-de-insolvencia-da-esi), but still authorised the €1Bn rights issue completed in May 2014 (https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1544&context=journal-of-financial-crises)

[17] In July 2014, Rio Forte initiated insolvency proceedings, which were followed by ESI and other GES-related entities. Two months after completing the €1,1Bn rights issue, BES reported a €3,7Bn equity shortfall (https://www.mlgts.pt/xms/files/v1/Publicacoes/Artigos/2016/Resolving_Banco_Espirito_Santo.pdf). In the beginning of August it lost the eligible counterparty status, and two days later is subject to Resolution Measure (https://www.mlgts.pt/xms/files/v1/Publicacoes/Artigos/2016/Resolving_Banco_Espirito_Santo.pdf)

[18] Despite its presence in PT Board, Oi indicated it was not aware of the investment and used it as an argument to force the MoU amendment (https://www.pharol.pt/cdn/frontend/webpage/410-pt-facto-relevante-divulgado-pela-oi-1712746865.pdf)

[19] Other members of the Board left, including Joaquim Goes Ferreira (https://pharol.magicbrain.pt/cdn/frontend/webpage/525-pt-renuncia-ao-cargo-de-administrador-nao-executivo-1713797617.pdf), Amílcar Morais Pires (https://www.rtp.pt/noticias/economia/morais-pires-renuncia-ao-cargo-de-administrador-na-seguradora-bes-vida_n756280), Otávio de Azevedo and Fernando Magalhães Portella (https://www.jornaldenegocios.pt/empresas/telecomunicacoes/amp/representantes_brasileiros_da_oi_saem_da_administracao_da_pt). João Mello Franco, until then responsible for the Audit Division (which ultimately missed the €897Mn investment and other governance issues), is nominated CEO of PT (https://www.jornaldenegocios.pt/empresas/telecomunicacoes/detalhe/joao_mello_franco_substitui_granadeiro_na_presidencia_da_pt_sgps)

[20] The MoU revision was coordinated with the second amendment to shareholders agreement and execution of the PT-Oi Definitive Agreements, which introduced provisions materially impacting the governance of the business combination going forward, including voting cap, or rebalancing of the management positions (originally, PT managed to secure the CEO, CFO and Vice-Chairman positions, 5/11 of the Board seats, the control of the merger Steering Committee)

of PT Portugal, SA ("PT Portugal"), which had been carved out of the PT-Oi merger, was sold to Altice for €7,4Bn[21]. PT then officially changed its name to Pharol, SGPS SA ("Pharol" or "PT")[xxxv] by mid-2015, formalizing its transition to a holding and litigation entity[xxxvi]. However, the rebranding did little to change market's view and Pharol was subject to a non-solicited takeover bid by Terra Peregrin[22] at €1,35/share (equivalent to €1,2Bn Equity Value[xxxvii]), which was later rejected by Oi[xxxviii]. Six months later Pharol share price was trading at €0,48[xxxix] (i.e. -64% then the offered price) and coincidently, Oi filed for judicial reorganization soon after (bankruptcy protection)[xl], citing a debt burden of over €17Bn[xli], which ended dragging for years[xlii].

Since its rebranding, Pharol's board pursued a litigation-heavy strategy[23], focusing on recovering funds from Rioforte's liquidation, challenging Oi's restructuring plans that would dilute its equity position[24] and suing former executives[xliii] and auditors[xliv] for mismanagement – at some point, to fund its legal expenses, Pharol considered €80Mn capital increase which was later abandoned[xlv]. Despite these efforts, the realization of any substantial recovery remained doubtful and after 31 years, from its creation in 1994 as a national telecom champion to its demise as a dormant holding company, PT's legacy had fully unravelled.

---

[21] Done in apparent violation of the merger terms (https://www.dn.pt/administracao-da-pt-tem-pareceres-que-justificam-fim-da-fusao-com-a-oi-12663683.html)

[22] Company owned by Isabel dos Santos (https://www.jornaldenegocios.pt/mercados/bolsa/detalhe/accoes_um_euro_abaixo_de_opa_de_isabel_dos_santos#:~:text=As%20ac%C3%A7%C3%B5es%20da%20Pharol%20est%C3%A3o%20a%20negociar,a%20sua%20oferta%20no%20final%20do%20ano) , which was also involved in dividend retention from Unitel (https://www.publico.pt/2014/03/25/economia/noticia/unitel-recusa-pagar-dividendos-a-pt-alegando-irregularidades-da-operadora-portuguesa-1629725)

[23] Board pursued legal damages from GES and Management Team, ignoring the potential conflicts between the two strategies. As an example, by demanding financial compensation from the Management Team, under the argument that transactions were not duly authorised and/or resulted from external incentives, it weakened the position within the Rio Forte insolvency proceedings (https://expresso.pt/economia/empresas/2024-12-09-luxemburgo-reconhece-147-milhoes-de-creditos-reclamados-pela-pharol-na-insolvencia-da-rioforte-antigo-braco-nao-financeiro-do-ges-4c35206b)

[24] Which eventually happened with Oi capital increase done through debt conversion into equity. As the number of shares increased from #825Mn to #2,3Bn, Pharol was diluted further to less than 8% post-conversion (PT Annual Report – 2018). In 2019 it was announced a fresh capital injection, increasing further the number of outstanding shares to #5,9Bn (PT Annual Report – 2019)

Rio Forte: The Centerpiece of the Snowball Effect

Incorporated in 2007, Rio Forte was headquarted in Luxembourg and fully-owned by Espírito Santo International, SA ("ESInt")[25] – the latter was established in 1975 and, through Espírito Santo Control, SA ("ES Control")[26] was ultimately owned by the Espírito Santo Family[27], therefore its designation as GES. With direct, indirect, and not-rarely crossed, €1,7Bn equity interests in 189 Companies[28], including a 10%[xlvi] indirect stake in BES estimated to be worth €420Mn[xlvii], based in 20 different geographies[xlviii], Rio Forte was the centrepiece of the GES interests. Rio Forte's organizational structure was known for being complex[xlix] and somehow opaque[29] (Sharife, 2016), with equity interests spread over industries ranging from financial and insurance services[30], to hospitality[31], healthcare, agro-industry, construction, real estate, among others[l].

Notwithstanding the absolute size of its book value, Rio Forte was in a fragile position for some time already[li], but its recurrent funding needs were traditionally tapped with the support of BES[lii]. The status quo changed when the Bank of Portugal, concerned with BES solvency, demanded the ringfencing of the latter to GES[liii]. Consequently, GES-related entities, including Rio Forte, were forced to find alternative funding sources in a relatively short period of time,

---

[25] Until 2005, through ES Control, the Espírito Santo Family had less than 50% of the shareholder capital. Not clear when it became majority shareholder. The remaining shareholder capital was distributed among names as Álvaro Sobrinho, Moniz da Maia, Oliveira, Gonçalves, Silveira, Kopelica, Ferreira dos Santos and Borges de Casto families. Source: Orbis; https://distotudo.wordpress.com/wp-content/uploads/2015/01/rf-blog.jpg

[26] ES Control had 59% equity stake in ESInt (https://distotudo.wordpress.com/wp-content/uploads/2015/01/rf-blog.jpg)

[27] Including representatives of the families Mosqueira do Amaral, Moniz Galvão, Ricciardi, Salgado and Espírito Santo (https://distotudo.wordpress.com/wp-content/uploads/2015/01/rf-blog.jpg)

[28] Including the acquisition of Espírito Santo e Irmãos ("ESI"), effective as of 31st of December 2013, which had major impact over total assets (as per Annex II, increased from €1,6Bn to €2,8Bn) and liabilities (as per Annex II, increased from €800Mn to €2,0Bn)

[29] This was apparently first highlighted by PWC when it decided to stop auditing BES (https://observador.pt/2014/12/13/riscos-de-exposicao-bes-ao-grupo-espirito-santo-foram-denunciados-em-2001/#:~:text=Relat%C3%B3rio%20elaborado%20em%202001%20pela%20auditora%20PwC,exist%C3%AAncia%20de%20empr%C3%A9stimos%20a%20seis%20sociedades%20offshore.)

[30] In addition to BES, it also had equity stakes in Best – Banco Eletrónico de Serviço Total, SA ("Banco Best"), Companhia de Seguros Traquilidade – Vida, SA ("Tranquilidade"), which were majority shareholders of Espírito Santo Ativos Financeiros, SA ("ESAF"), Banco Espírito Santo de Investimento, SA ("BESI")

[31] Including hotel chain (Tivoli hotels) and travel agencies (Top Atlântico and Tagus) (https://distotudo.wordpress.com/wp-content/uploads/2015/01/rf-blog.jpg)

otherwise financial underperformance would quickly become a solvency issue. With a CCC/C credit rating equivalent[32] by the end of 2013[liv] and the Republic of Portugal under the €78Bn EU-IMF support package[33], there weren't many alternatives available until Ricardo Salgado[34] intervened and GES managed to tap well-known investors[35]. Nevertheless, funding raised was insufficient to cover the snowballing funding needs (Sharife, 2016), until everything collapsed in 2014 (Belo Morais, 2014).

BES: The Common Denominator in PT and Rio Forte

The relationship between PT and BES is formalized with the strategic partnership executed before the conclusion of the privatization program in 2000 and it strengthened since then. Irrespective of PT leadership, BES managed to gain increased influence throughout the years, despite maintaining its equity stake relatively unchanged at 10%[36], but it is with Sonaecom's takeover bid that BES managed to accelerate and widen significantly its sphere of influence[37], as it played a pivotal role on bringing new shareholders[38], which proved critical to reject the offer.

Moving forward, with new governance in place and a portfolio of highly indebted shareholders[39], PT value-proposition became centred around cash distribution, and the sale of

[32] The negative coverage ratio, credit rating subordination to controlling Company (e.g. on the 11th of July 2013, BES credit rating was affirmed at BB- by S&P, a notch lower than the Republic of Portugal) and balance sheet composition (e.g. no operational activity, limited cash available in relation to size and/or long-term assets almost exclusively financed with short-term debt)
[33] The Republic of Portugal was under financial distress, which negatively impacted the financing of the broader economy
[34] Ricardo Salgado met with Luís Pacheco de Melo to discuss Rio Forte investment contex (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)
[35] In addition to PT, Amorim invested up to €179Mn (https://tvi.iol.pt/noticias/economia/banca/americo-amorim-processa-novo-banco-por-179-milhoes)
[36] At or slightly below the voting cap threshold. Source: PT Annual Report
[37] Combined equity stake estimated at 21%, not subject to voting cap (excluding Telmex). As per Annex VIII
[38] On top of identifying the new shareholders, it also provided funding to support and hold the underlying stake, namely Ongoing, Controlinveste and/or Joe Berardo
[39] After several years facing financial difficulties, Controlinveste (https://www.publico.pt/2019/07/23/economia/noticia/empresa-joaquim-oliveira-divida-750-milhoes-1880872), Ongoing (https://www.jornaldenegocios.pt/empresas/media/detalhe/ongoing_declarada_insolvente) and/or Joe Berardo (https://eco.sapo.pt/2023/01/09/bcp-avanca-para-a-execucao-de-sociedades-de-berardo/) ended facing insolvency proceedings

Vivo's equity stake to Telefonica helped sustaining that strategy for a longer period of time. From 2006 onwards, dividend payments skyrocketed (€5,2Bn cash distributed[40] from 2006 to 2013) partially-financed with reduced CAPEX spending (from €1,2Bn in 2008 to €0,6Bn in 2013), notwithstanding the increased debt burden (Net Debt reached €7,7Bn in 2012, well above the €4,3Bn in 2007 or €2,1Bn in 2010), tighter cash-flow generation (Operating Cash-Flow moved from €1,4Bn in 2008 to €0,5Bn in 2013) and share price underperformance (€3,0Bn market cap in 2013, below the €7,6Bn in 2010)[lv]. If this was not enough, PT subscribed BES capital increases[lvi] and started to finance GES-related entities[41] with ever-increasing exposures, until Rio Forte's €897Mn default, and then the music stopped[42].

From the Defaulted Investment to Loss of Control

The Case of the Investment That Should Never Happened

In June 2014[lvii], PT disclosed the cumulative investment of €897Mn in commercial paper issued by Rio Forte, due to be repaid the month after (Table 1), but never reimbursed[lviii]. The default led to insolvency proceedings initiated almost immediately[lix], with formal bankruptcy, declared by the Courts of Luxembourg, late that year[lx]. These events had major implications over the MoU executed between PT and Oi[lxi], as the €897Mn commercial paper was part of the €1,8Bn assets contributed[43] to Oi's €4,5Bn capital increase, executed in May[44] (two months prior to the maturity date of the commercial paper issues). With the negative impact of the default over

[40] Excluding PTM shares offering to PT equity holders (https://www.bloomberg.com/news/articles/2007-04-27/portugal-telecom-shareholders-approve-pt-multimedia-spinoff)
[41] Not clear when it started, but it was possible to trace transactions back to 2012
[42] As per Charles Prince, Citigroup CEO: "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance"
[43] Transferred assets were subject to Due Diligence from Santander Brazil, SA ("Santander") (https://cdn-sites-assets.mziq.com/wp-content/uploads/sites/39/2017/12/OiSA_Laudo_PT_20140221_port.pdf)
[44] The MoU anticipated a R$14,1Bn capital increase, including R$7,0Bn – R$8,0Bn cash injection and R$6,1Bn asset contribution from PT. The execution of the MoU was conditional to achieving the minimum threshold of the cash injection

the on-market value of the assets contributed by PT, on the 16th of July 2014[45], PT and Oi announced the revised MoU terms[lxii], which contemplated the swap of the €897Mn defaulted commercial paper with euro-equivalent amount of shares, plus non-transferable[46] American Call Options, with step-up strike and amortizing profile[lxiii] (Annex I).

Table 1 – Summary Terms of Rio Forte's Commercial Paper

Summary terms of the defaulted commercial paper subscribed by PT and related parties (PT Finance (***) was 100% owned by PT). Not clear why despite having similar start date and tenors, plus unsecured status, the PT issue (*) was priced considerably below the remaining two

Counterparty Name	Equity Stake (%)	Notional (€ Mn)	Start Date	End Date	Coupon (%)	Euribor** (%)
PT Finance***	100%	647	15/04/2014	15/07/2014	3,75%	0,33%
PT	-	200	15/04/2014	15/07/2014	3,00%*	0,33%
PT Finance***	100%	50	17/04/2014	17/07/2014	3,75%	0,33%

Source: PT Annual Consolidated Report 2014, PWC Audit Report, Public Information

** Assumed 3m Euribor set two business days prior to Start Date

Consequently, PT all-in equity position moved from the original 39,7% post-merger to 25,6%[lxiv] (later revised upwards to 27,5%[lxv]) and be subject to governance changes. With PT's weakened shareholder position, these provisions ended having a material impact over the decision to sell PT Portugal to Altice[47] (€7,4Bn transaction, including €4,9Bn cash, €0,9Bn net debt and €1,3Bn pension funds liquidity gap) and, more recently, PT Ventures SGPS, SA ("PT Ventures") for $1,0Bn[lxvi] (including $315Mn retained dividends since 2011[lxvii], plus interests[lxviii]). Nothing was left unchanged, including PT itself, which became a value-destruction Company (Koller, Goedhart, & Wessels, 2025) named Pharol, with activity limited to Rio Forte-related issues and Oi's equity stake oversight, just waiting to turn the lights off.

[45] Interestingly, it was announced prior to the maturity of the €50Mn tranche, due on the 17th

[46] The non-transferable feature meant that any monetization of the underlying contract should be used for, and only, the purpose of buying back the equity stake

[47] Transaction announced in December 2014 (https://cnnportugal.iol.pt/economia/09-12-2014/opa-pt-administracao-da-oi-oficializa-venda-da-pt-a-altice) and concluded in 2015 (https://www.publico.pt/2015/06/02/economia/noticia/altice-conclui-compra-da-pt-portugal-1697648)

Apart the internal pressure from BES/GES, it is hard to understand why PT chose to invest the equivalent to 38% of its cash reserves[48], or 51% of the €1,8Bn assets expected to be contributed to Oi's capital increase in less than 2 weeks (commercial paper issued by Rio Forte had a 3-month tenor). To be able to execute the €897Mn investment, PT issued the equivalent of €855Mn commercial paper[lxix] (€400Mn arranged by BES and BESI) due on 15th and 23rd of May 2014, suggesting Company was acting as a financial institution by trading duration and credit risk (i.e. PT was effectively entering long CCC/C with a short position on its own BBB-/BB). If correct, this seemed a dangerous play given context (e.g. BES was under increased scrutiny[49], pressured to reinforce provisions and raise capital[lxx]), and when PT had sub-investment grade status (negative outlook by Fitch, S&P and Moody's) on-watch for upgrade upon successful completion of the Merger[lxxi].

Moreover, with the investment, PT became the largest debtholder of Rio Forte (e.g. Company had €877Mn of ST debt[50] outstanding in 2013[lxxii]), subordinated to shareholders as funds disbursed were likely to be used to repay debt to related parties (e.g. €1,4Bn owed to Parent Company on the back of the acquisition of Espírito Santo Irmãos, SA ("ESI") and other GES-related entities[lxxiii]). PT was synthetically short an option[51] in favour of Rio Forte's existing shareholders (i.e. limited equity buffer after repayment to related parties, in a Company with no operating activity, highly exposed to illiquid assets with uncertain valuation[52], and negative NOPLAT), in return for a 1,50% act/360 premium (with the risk of being wiped-out).

---

[48] Source: As per 1Q14 Consolidated Report, PT had €1 276Mn in cash and deposits, plus €1 071Mn in ST investments (expected to include commercial paper issued by ESI, which would be rolled over against Rio Forte)

[49] In September 2013, as a result of the ETRICC stress testing, the Bank of Portugal demanded BES to start ringfencing its operations with respect to other GES-related entities (https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1544&context=journal-of-financial-crises)

[50] In June 2014, PT received Rio Forte annual report. It included a note stating that the equity stake was bought using ST debt instruments (i.e. commercial paper) (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

[51] In a distress scenario, creditors are effectively Short a Put Option, (capped at PV of the debt) while equity holders have a payout similar to a Long Call position. The sum of the two can be interpreted as the value of the firm ("EV")

[52] Move of ESFG to Rio Forte had a negative impact ranging from €1,6Bn to €1,9Bn (and known to BES at the time PT invested €897Mn) (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf). It was value by BES at 4,3x ESFG market cap (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

The transaction also lacked economic sense, as funds could have been used to repay part of PT's outstanding debt, which had 5,3% average interest in 2013[53] (well-above the interest offered by Rio Forte). Also, for PT breaking-even at 3,75% coupon, Rio Forte would require a 89% recovery rate (Table 2), considerably higher the 15% reported after insolvency (at this recovery rate, coupon needed to be close to 26%, which would never be received anyway).

Table 2 – Simulated Rio Forte Recovery Rate Break-Even

Binomial analysis of the €897Mn investment in commercial paper issued by Rio Forte, based on the probability of default ("PD") and agreed interest payments ("Return"). To break-even in the first scenario (I_a), Rio Forte implied Recovery Rate had to be equal, or higher than, 89%. At 15% Recovery Rate (as per Valuation of the Commercial Paper post-default), Return had to be equal, or higher than, 26% in the second scenario (I_b)

Notional Amount (€ Mn)	Scenario Analysis (%)	Return (%)	Risk Free (%)	Recovery Rate (%)
I_a = 897	(1 – PD) = 76,58%	3,75%	0,33%	100%
	PD = 23,42%	0,00%	0,33%	$\boxed{? = 89\%}$
I_b = 897	(1 – PD) = 76,58%	$\boxed{? = 26\%}$	0,33%	100%
	PD = 23,42%	0,00%	0,33%	15% = €135Mn*

Source: Probability of Default as per S&P Global Fixed Income Research 2013. Public Information, Own Calculations

* First value disclosed by PT post Rio Forte insolvency (Table 5)

The Opportunities to Walk-Away or Limit Losses

Even in the case the investment made any sense, PT had the obligation to protect itself from any extreme scenario, namely by[54]:

(i) Demanding a higher coupon, as 3,75% was marginally higher than short term deposits[55] and well below GES-related equivalent instruments[56], and/or CCC/C rated equivalent[57].

[53] Longer duration (6 years), but better implied credit rating. Source: PT Annual Report

[54] Under the assumption that standard mitigants, as third-party guarantees, were not an option

[55] PWC Audit Report indicates that deposits with equivalent maturity profile were returning at least 2,25% (1,500% spread equivalent) (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

[56] PWC Audit Report mentions that other GES-related investments could generate 6,75% (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

[57] As a proxy, by December 2013, Aswath Damodaran estimated $-denominated CCC/C rated paper to pay 600bps over US Treasury for tenors up to 12 months (https://pages.stern.nyu.edu/~adamodar/)

Requesting zero-coupon structure to lower the absolute size of the investment at inception and/or finance the acquisition of BES' CDS[58] to cover its Expected Exposure ("EE")[59]. With Rio Forte and BES close relationship[60], PT was likely to be partially compensated under an event of stress, and/or

(ii) Investing through SPV to mitigate the recourse to PT, with duration-equivalent (i.e. extend maturity of BES/BESI commercial paper[61]) and deeply subordinated financing (i.e. long conversion option, or hybrid wording to have a quasi-equity treatment) or partially collateralized with the €897Mn investment. In an event of default, PT exposure would be limited to the notional amount differential (i.e. €897Mn investment minus BES/BESI disbursed credit line), and/or

(iii) Demanding the collateralization of PT's exposure with Rio Forte selected assets (tranches subscribed were senior unsecured). Due to Rio Forte's subordinated relationship with BES and Ricardo Salgado's involvement in the investment[62], potentially extend it to include the BES 10% equity stake in PT[63] (at the time, it was valued at €420Mn[lxxiv]).

The combination of these alternatives would have allowed limiting potential losses arising from the €897Mn investment, which would be resolved quickly – in opposition to the existing scenario, with open litigation and (still) uncertain recovery rates – or, equally important, provide opportunities to walk-away beforehand.

---

[58] Considering they were related parties, and Rio Forte held an indirect €400Mn stake in BES (equivalent to +25% of the total investments), it could have used BES 5yr CDS – adjusted to hedge ratio – which was trading close to 500 bps per annum. Interestingly, the BES CDS were not triggered with the Resolution Measure, creating a relevant precedent going forward (https://www.reuters.com/article/portugal-cds-b-espirito-santo/no-cds-trigger-for-bes-succession-event-likely-idINL6N0QC4OW20140806/)

[59] Average financial exposure to another counterparty (i.e. potential loss) throughout the lifetime of the underlying asset

[60] This can be verified by the decision of Bank of Portugal to segregate BES from GES and the absolute size of the provisions that ESFG was forced to incorporate (https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1544&context=journal-of-financial-crises)

[61] On the 17th of April 2014, BES/BESI subscribed €400Mn commercial paper issued by PT with 1 month tenor (due on the 15th of May 2014). As per PWC Audit Report, proceeds were later used to subscribe the €897Mn commercial paper issued by Rio Forte (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

[62] Terms of the investment were originally discussed with Ricardo Salgado, which corroborates the inter-connected relationship between BES and GES (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

[63] Rio Forte indirectly owned ESFG, the GES entity holding the equity stake in BES

MoU Revised Terms: Another Route of Value Destruction

The sequence of events from Rio Forte commercial paper default to PT dismembering seems clear – and given Oi debt burden, one cannot say it was totally surprising. Therefore, PT should have anticipated these moves and actively explore different routes to postpone any renegotiation discussions[64] if any, namely because:

(i) Assets contributed by PT to the Merger were subject to a due diligence performed by Santander mandated by Oi, submitted on the 21st of February 2014, with reference to 31 December 2013[lxxv]. The original €897Mn investment was done in April 2014 only, but PT was investing in relatively similar assets recurrently beforehand (Table 3); and

(ii) The €1,8Bn assets transferred to, and accepted by, Oi were part of the €4,5Bn capital increase, process during which it was advised by some of the largest investment banks[65]. Moreover, these transactions are traditionally subject to relevant scrutiny from regulators and strict due diligence processes[lxxvi], therefore assets transferred were likely part of the process (given the materiality to the success of the transaction); and

(iii) The execution of the original MoU was subject to PT having a minimum equity stake of 36,6% of the merged entity, well below the 25,6% - 27,5% stake post-revision, without retaining the embedded voting rights of the swapped shares. PT had room to walk-away, which would likely put Oi under relevant financial distress[66], as the proposed Merger was expected to generate €1,8Bn synergies[lxxvii] (critical for rating upward revision of both entities to investment-grade level); and

[64] Instead, PT opted to announce amended MoU terms immediately, before the End Date of the €50Mn investment tranche

[65] BTG Pactual, BoAML, Barclays, Citi, Credit Suisse, HSBC, together with Espírito Santo Investment Bank were the Global Coordinators and Joint Bookrunners. Bradesco, Goldman Sachs, Morgan Stanley and Santander, together with Caixa Geral de Depósitos were Coordinatos and Joint Bookrunners

[66] At the time, both entities were rated at Ba2/ BBB- with the difference that Oi's shareholders had much more to loose (e.g. PT had €4,8Bn consolidated net debt by the end of 2013, while Oi, including controlling shareholders, was closer to €10,1Bn)

Table 3 – Selected PT Commercial Paper Investments

Summary table including PT investments in commercial paper issued by GES-related entities. Through the analysis of (still) available annual reports was possible to identify issues since 2012. Therefore, these investments were unlikely to be identified during Santander's due diligence (and if that was the case, it potentially constituted a breach) and/or unknown to Oi (had Non-Executive Board Members in PT since, at least, 2011)

Start Date	End Date	Issuer	Subscriber	Notional Amount
02/08/2012	01/02/2013	ESInt	PT Finance	€250
15/10/2012	14/01/2013		PT Finance	€200
17/10/2012	17/01/2013		PT Finance	€60
	May 2013		PT Finance	€250
	May 2013		PT Finance	€200
	May 2013		PT Finance	€60
May 2013			PT Finance	€500
May 2013			PT Finance	€200
May 2013			PT Finance	€50
08/11/2013	10/02/2014	ESInt	PT Finance	€500
29/10/2013	29/01/2014		PT	€200
20/11/2013	20/02/2014		PT Finance	€50
Jan-Feb 2014	Apr 2014	Rio Forte	PT Finance and PT	897
15/04/2014	15/07/2014	Rio Forte	PT Finance	647
15/04/2014	15/07/2014		PT	200
17/04/2014	17/07/2014		PT Finance	50

Source: PT, PWC Audit Report, Public Information

Note: Red lined data are estimates only, as there is no detailed information. Based on Public Information

(iv) The €897Mn investment seemed to have been done below on-market prices, without comparing alternatives[lxxviii] or obtaining the required internal pre-approvals, a potential breach of Ordem de Serviço 111[67]. Therefore, PT was equally positioned to suggest it was not aware, or took part, of the investment decision (like the one adopted by Oi[lxxix]); and

(v) Terms of the MoU were valid until 01st of October 2014, which could be postponed with the agreement of the different parties, otherwise original voting rights would be

[67] On the 17th of December 2010, PT approved Ordem de Serviço 409, which established that transactions with related parties, excluding short-term investments, needed to be approved by the Board. On the 23rd of February 2011 it was replaced by Ordem de Serviço 111, which still excluded short-investments with related parties if, and only, done at on-market prices (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf)

reinstated – therefore, there was no reason to announce an agreement just two weeks after the public disclosure of the investment. With Oi's shareholders in relatively poor financial position, time was in favour of PT to achieve better revised MoU terms.

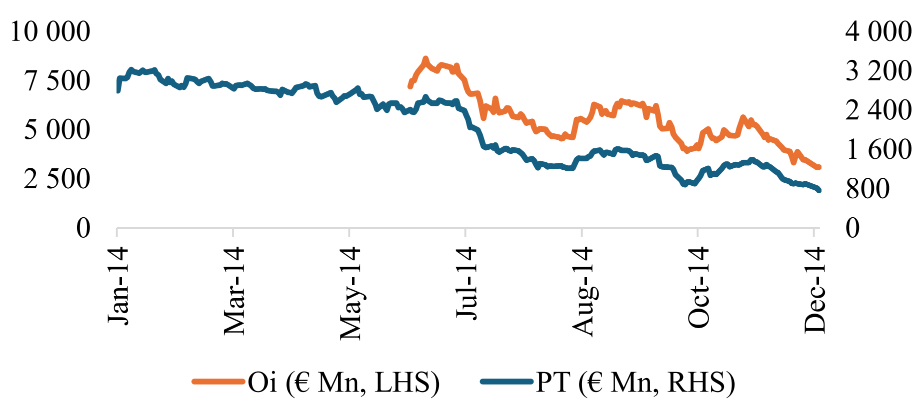
The Importance of Regaining Control

The Estimated Value of Regaining Control

The Rio Forte subsequent events had major impact over Oi market capitalization, which collapsed by €7,4Bn (-70%) in 2014, to €3,1Bn[68] (Figure 1). With the ongoing business combination, PT was not indifferent to Oi's price swings and saw its market capitalization (Figure 1) drop by €2,0Bn in 2014 (-72%), or €2,3Bn (-75%) if we incorporate peers[69] 10% share price increase. In summary, PT share price performance throughout the same period was equivalent to 25% equity stake in Oi[70] (€1,5Bn), plus the net value of the €897Mn defaulted commercial paper.

Figure 1: PT and Oi Historical Market Capitalization

Oi and PT euro-denominated market cap in 2014 to illustrate the impact of both the €897Mn investment default, MoU renegotiation and/or change of the leadership Team



Source: Public Information, Own Calculations

[68] EURBRL moved from 3,2467 on the 30th December 2013 to 3,2151 on the 30th December 2014
[69] Non-exhaustive. euro-denominated telecommunication companies Deutsche Telekom, Telecom Italia and Telefonica. Assumed peer performance considerably lower than the European sector benchmark index (DJ Stoxx 600 Telecommunications), which rebounded by ~32%
[70] Equity stake post Rio Forte asset swap

The change in Oi's share price seems to reflect the events that followed Rio Forte's default, including the potential €7,4Bn sale of PT Portugal to Altice, which carried important indirect effects not fully-loaded in Altice's offering, including the loss of €1,8Bn synergies[71], €900Mn linked to dividend policy changes[72] and sustainability concerns[73]. Notwithstanding the potential Net Debt/EBITDA reduction to 1,49x, cash-flow generation would be limited due to high CAPEX requirements in relation to EBITDA (Table 4), therefore maintaining PT Portugal within scope was of utmost importance to the future of both PT and Oi.

Table 4 – Alternative Combination Scenario Analysis

The PT-Oi merger was estimated to generate €1,8Bn synergies, introduce new dividend payment policy, improve Free Cash-Flow, while Net Debt was expected to remain at 3,2x EBITDA. The exclusion of PT Portugal from the equation (i.e. computing the impact from the sale of PT Portugal to Altice) would likely eliminate the synergies, cancel the dividend policy, while almost 80% of the EBITDA generation would be used to finance CAPEX (i.e. limited recurrent Operating Cash-Flow)

	PT Portugal	PT Other	Oi	Sum	PT-Oi Merger	Merger excl. PT Portugal
Revenues	2 560	340	10 125	13 025	12 988	10 465
EBITDA	1 091	95	2 897	4 083	4 429	2 992
EBITDA Margin (%)	43%	28%	29%	31%	34%	29%
CAPEX	490	99	2 260	2 849	2 807	2 359
Net Debt	4 037	582	10 979	15 598	14 174	4 461
Net Debt/EBITDA	3,7x	6,13x	3,79x	3,82x	3,20x	1,49x
Market Cap					10 500	
EV					24 674	
EV/EBITDA					5,57x	
PV Synergies					1 800	
PV Dividend					913	
Dividend*					164	
Implied Multiple**					5,57x	

Source: PT Consent Solicitation pro-forma financials (2013 annualized). PT Portugal and PT Other data also cross-checked with 2013 PT Annual Consolidated Report. * $R 500Mn converted at the PT Consent Solicitation 3,0406 EURBRL exchange rate. ** As per estimated EV/EBITDA of the merged entity. Note: Values in €Mn, unless stated otherwise

[71] As per MoU and PT Consent Solicitation (https://pharol.pt/cdn/frontend/webpage/1443-pt-portugal-telecom-consent-solicitation-1715859344.pdf)

[72] Consent solicitation indicated the willingness to pay $R 500Mn (equivalent to €164Mn) in dividends per annum (https://pharol.pt/cdn/frontend/webpage/1443-pt-portugal-telecom-consent-solicitation-1715859344.pdf). PV calculated using the same EV Multiple at 5,57x

[73] Surprisingly, this understanding was not followed by rating agencies, because it focused on short term debt repayment (https://www.fitchratings.com/research/pt/corporate-finance/fitch-atribui-rating-bb-proposta-de-emissao-de-eur750-milhoes-em-notas-da-oi-11-06-2015)

With a diluted equity position, PT had limited room to go against Oi's will to sell PT Portugal – at the time, Oi was too focused on limiting losses[lxxx] and repaying debt[lxxxi]. With sub-investment grade credit rating based in Brazil, alternative funding sources were likely scarce, therefore the proceeds from the sale of PT Portugal would bring the much-needed time to find new liquidity pools and/or potential buyers for selected assets[74]. The need to sell PT Portugal helps justifying the speed and the mispricing of the transaction, as Oi should have computed the negative impact at both synergies and future dividends[75] – EV/EBITDA decreases significantly to 4,02x ("Adjusted Valuation") – and associated sustainability concerns. The Adjusted Valuation is considerably lower (Table 5) than EU-based selected telecommunication Companies (6,03x), EV multiples implied at PT-Oi Merger (5,57x), market pricing prior to MoU execution (6,73x) or Oi Capital Increase (5,37x), equivalent to €1,5Bn - €2,9Bn undervaluation of PT Portugal.

The value of regaining control can be estimated by adjusting the €7,4Bn market cap loss to PT's 39,7% original equity stake (i.e. €2,9Bn, within the high end of the valuation range). Notwithstanding the material upside and effective value creation (i.e, without PT Portugal, Oi financial sustainability was at risk), PT adopted a more passive approach and limited its activity to maximizing recovery rate of the €897Mn defaulted commercial paper and pursuing widespread litigation. The result of such strategy is often rejected by financial theory[76] and, in this case, confirmed by reality – throughout the years, PT systematically destroyed value to its shareholders[lxxxii], and even so was unable to reconvene its strategy.

[74] Something Oi was already doing. For example, it announced the sale of telecommunications towers (https://www.pharol.pt/cdn/frontend/webpage/407-pt-oi-divulga-venda-de-torres-moveis-1712746206.pdf)

[75] PV of annual dividends computed using same multiple

[76] Irrespective of the results of the strategy pursued by PT, it represented a highly inefficient usage of investor's committed capital, as shareholders didn't need it to have exposure to Oi and/or Rio Forte. This understanding is aligned with financial theory (Markowitz, 1952) (Modigliani & Miller, 1958), and can be justified by Management's need for survival (Amihud & Baruch, 1981), continuing governance issues (Jenis, Denis, & Sarin, 1997) and/or limited value creation alternatives (Jensen, 1986).

Table 5 – PT Portugal Valuation Analysis

Altice offered €7,4Bn including earn-out and €2,2Bn Net Debt. Adjusting the offering to the PV Synergies and PV Dividends (likely to be lost post-sale) and removing the impact from the earn-out, the implied EV/EBITDA falls to 4,02x, well below comparable, which ranged from a minimum of 5,37x to 6,73x (equivalent to €1,5Bn - €3,0Bn estimated under-pricing)

PT Portugal	Altice Offer	Peers Weighted*	Pre-MoU**	PT-Oi Merger***	Oi Capital Increase****
EBITDA	1 091	1 091	1 091	1 091	1 091
Net Debt	2 200				
Financial	900				
Pension Funds	1 300				
Earn-Out	300				
EV Offered	7 400				
Lost Synergies	-1 800				
Lost Dividends	-913				
Earn-Out	-300				
EV Real	4 387	6 575	7 345	6 076	6 369
EV/EBITDA	4,02x	6,03x	6,73x	5,57x	5,37x

Note: According to public information, Altice offer was valued at €7,4Bn EV, including €4,9Bn cash, €0,9Bn debt, €1,3Bn pension fund gap and earn-out. * Non-exhaustive. Weighted comprehends aggregated data from peers as Telefonica, Telecom Italia and Deutsche Telekom. ** Assuming EV Multiple of PT as of 31 December 2013. *** As per Table 3. **** Valuation implied by the assets contributed by PT to Oi Capital Increase (€1,75Bn equity value, plus €4,6Bn Net Debt). Source: Public Information, Own Calculations

Alternative Paths to Regaining Control

With PT Portugal on the verge of being sold to Altice, Pharol had limited time to regain its original equity position and capture the €7,4Bn estimated market value, but reversing the €897Mn swap would imply a cash payment of €387Mn[77] (€193Mn in excess of Pharol's net cash position and American Call Options value as of 31 December 2014). With no underlying operating activity, loss of rating coverage and broader context, Pharol may have struggled to raise the required credit lines to cover the shortfall (assuming it had tried), but the active management of the (i) €897Mn defaulted commercial paper, (ii) American Call Options and (iii) PV of Non-Operating Losses, but is important to understand its underlying economic value beforehand:

[77] Market value of the swapped equity position as of 31st of December 2014

(i) From 2015 onwards, Pharol reported the market value of the €897Mn defaulted commercial paper. It was assumed the value disclosed annually was correct and represents a transactional price[78] (i.e. it can be sold at the disclosed value) and changed annually only (i.e. reported value was valid for all the preceding business days of the same year)[79]. Assumed market value will take no view on the likelihood of recovering the €897Mn investment, although, if classified as related party[80], PT could end being subordinated to other creditors and see its rights position depreciate significantly; and

(ii) It was assumed the market value of the American Call Options disclosed annually by PT is correct[81] and not subject to execution charges[82]. It was estimated the equivalent daily market value through binomial model[83] (Hull, 2021), calibrated to be consistent with Pharol's disclosed values[lxxxiii]; and

As expected, simulated market value of the Call Options is positively correlated with Oi share prices, with unlimited gains and floored at zero (i.e. option would not be exercised by Pharol below strike). Since the announcement, its estimated market value moved from €382Mn in July 2014 to value close to zero from December 2015 onwards (Figure 2). The methodology used seems appropriate as market value is aligned with the value disclosed by Pharol as of 31st December 2014 (€0Mn difference) (Figure 3). Thereafter, due to Oi's sharp share price decrease, market value becomes negligible (€6Mn disclosed by Pharol as of 31st Decemer 2015, €2Mn one year later and €0Mn from 2018 onwards).

[78] To be disclosed annually, it may be subject to external valuations and aligned with bankruptcy proceedings. With value capped at 15%, and decreasing thereafter, it seems consistent with standard market prices
[79] Distressed assets are more sensitive to bankruptcy-related events, if not exposed to translation risk
[80] As per PWC report (https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf) PT and Rio Forte can be considered related parties as per IAS 24 and NCRF 5
[81] Value disclosed by Pharol annually is expected to be subject to external valuations
[82] Derivative positions can be subject to execution charges to cover execution (bid-offer spread to accommodate price moves and/or liquidity constraints) and/or credit risk (CVA), funding costs due to non-Libor flat discounting of asymmetrical expected payments throughout the life of the transaction (FVA), among other
[83] Underlying American Call Option with step-up strike and amortizing notional amount requires pricing flexibility that Black-Scholes fails to address

Figure 2: Simulated Market Value

Simulated daily market value of the American Call Options, using the calibrated binomial model. With a peak at inception, it quickly bottomed at 0

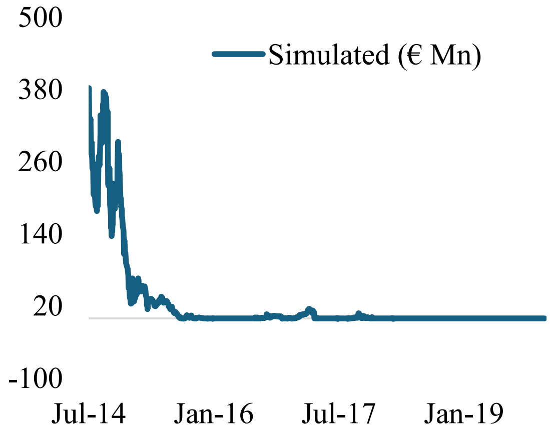
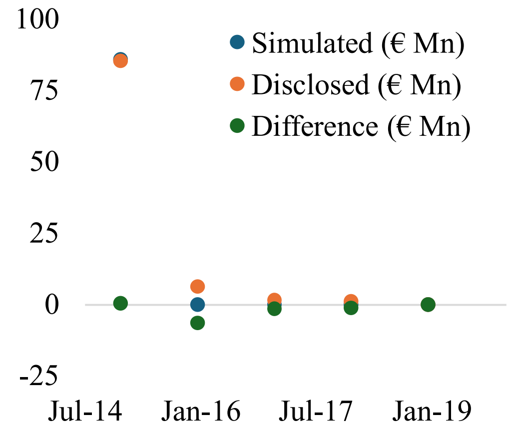


Figure 3: Summary Call Option Value

Cross-check of the simulated market value at year-end with the PT's disclosed value. The difference is negligible throughout the window period



Source: Simulated based on own calculations. Disclosed as per Pharol

(iii) Non-Operating losses reflect the inefficiency of having Pharol managing a portfolio of individual assets, that investors could be managing by themselves (i.e. they don't need Pharol to gain exposure to Oi share prices or Rio Forte defaulted commercial paper). It essentially comprehends the present value of the costs expected to be incurred by Pharol, throughout the period analysis, including FTE and External Services and Supplies[lxxxiv]. Future cash-flow is traditionally estimated as a function of Return on Capital Employed ("ROCE") and Reinvestment Rate (Koller, Goedhart, & Wessels, 2025), but considering that PT adopted a passive management approach and/or limited to liquidate assets, this methodology doesn't seem adequate (i.e. financials are driven by other objectives rather than business growth). Therefore, it was assumed PT had visibility (and control) over future costs performance in every year of the analysis[lxxxv].

Understanding the value of the different assets is equally important as to the change of the swapped equity stake – the purpose of the former is to finance the acquisition of the latter.

Since the disclosure of the €897Mn investment, Oi share price declined significantly (Figure 4), while BRL depreciated against the EUR (Figure 5), effectively lowering the EUR equivalent price (Figure 6), therefore the cost of buying back the original position (Figure 7) moved significantly in Pharol's favour.

Figure 4: Share Price (BRL)

Daily BRL value of Oi share prices (ordinary and preferred)

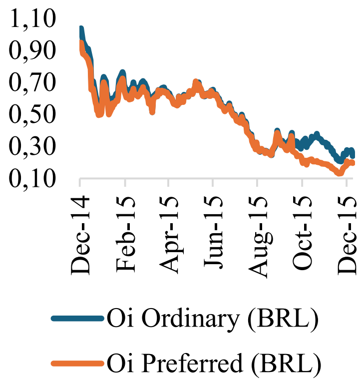


Figure 5: EURBRL Spot

BRL depreciated significantly throughout the window period

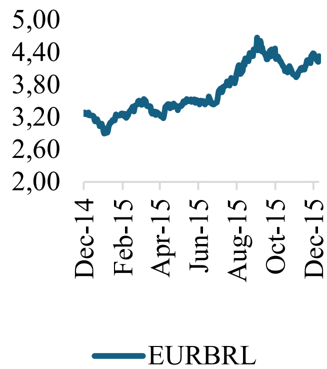
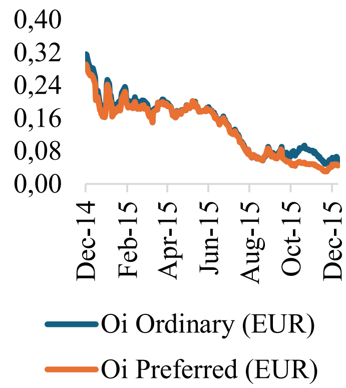


Figure 6: Share Price (EUR)

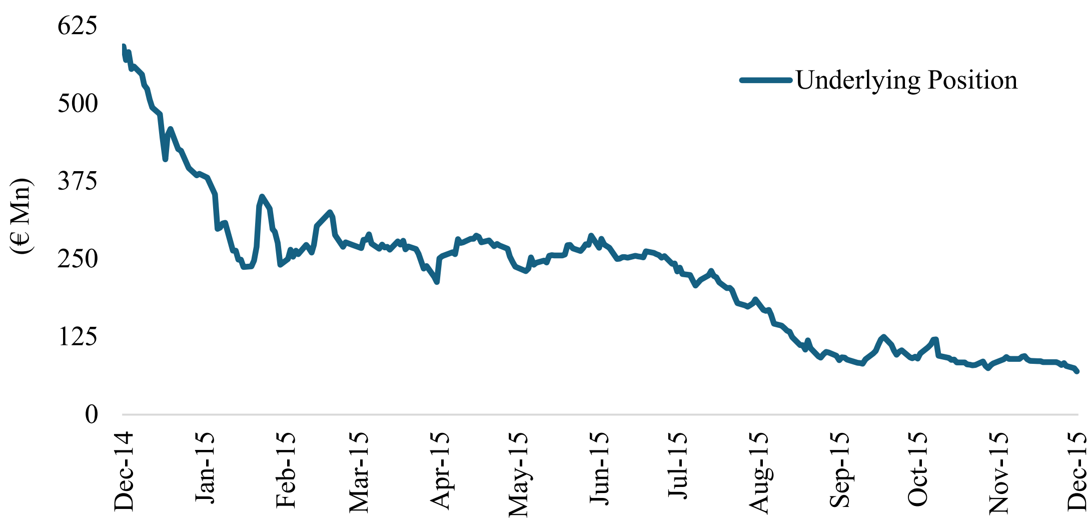
The EUR equivalent share price incorporating EURBRL impact



Source: Public Information, Own Calculations

Figure 7: EUR Equivalent Cost of Buying Back Swapped Position

EUR amount required to buy-back the position needed to move from the 25% post-MoU revision to the original 39,7%. Its performance is required to understand the effort required (i.e. the assets needed to be sold) throughout the window period



Source: Public Information, Own Calculations

Pharol: A Fused Light?

With Altice on the radar to acquire PT Portugal, PT needed to swap-back the original position as soon as possible to be able to capture the €1,5Bn - €2,9Bn[84] market capitalization upside, because with the MoU revised terms its voting rights were now reduced. With limited room to raise new debt, PT needed to look at the existent asset portfolio for cash generation opportunities (Figure 8), between mid-December 2014 (when Altice reached a preliminary agreement with Oi), and no later than the 02nd of June 2015 (when Altice completed the acquisition of PT Portugal). Pharol would have been able to buy-back the original position, without using its net cash position by the 11th of August of 2015[85] (Figure 9), but it would be too late[86]. However, including the economic value of the Non-Operating (Figure 9), Pharol would have been able to do it by the 31st of March 2015 (potential to be shortened further to mid-January 2015 by withholding the €27Mn dividends paid).

Figure 8: Historical Asset Performance

Individual market value of the different assets since MoU revision to the end of 2015

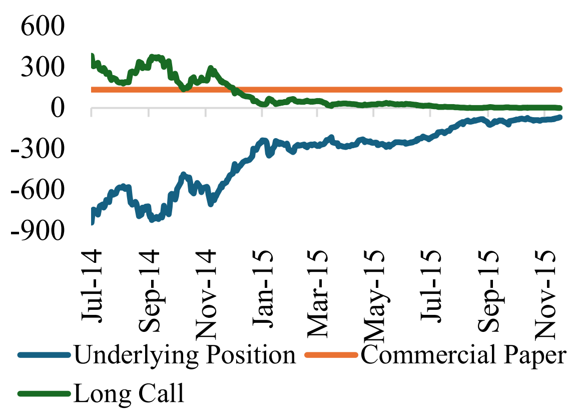
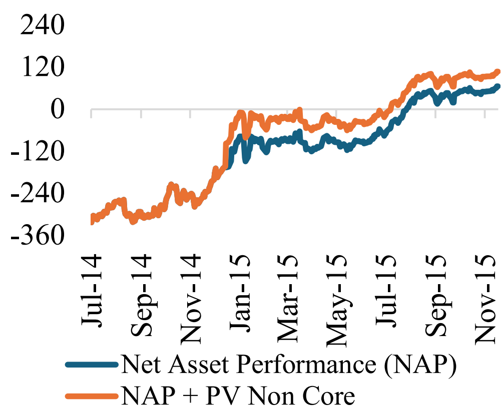


Figure 9: Net Asset Performance

Value of the underlying position needed to be bought back and total asset value



Note: Net Asset Performance (NAP) as the sum of Underlying Position, Commercial Paper and Long Call. NAP + PV Non Core is the sum of NAP and PV Non Core. Values in €Mn, unless stated otherwise. Source: Public Information, Own Calculations

[84] Based on the 39,7% original equity stake
[85] The sale of the €897Mn commercial paper and associated American Call Options would be sufficient to buy the Oi swapped shares
[86] PT Portugal was sold on the 02nd of June to Altice

Pharol had many relatively simple alternatives at hand (and plenty of time) to regain its original equity stake before Oi closing the final agreement with Altice, but the ability to do it by mid-December 2014, prior to deadline of the original MoU and Oi reaching a preliminary agreement with Altice, would be more difficult (NAP close to €200Mn), but not impossible. Given the upside potential of Oi share price, Pharol would have raised the required funds (Figure 11) by selling an American Floor (Figure 10)[87], with 15th December 2014 start date[88], and remaining generic terms similar to the outstanding the Call Options (e.g. tenor, amortization profile, number of shares) at 0,92/share – even if exercised, it would be at a price below the 1,19/ordinary and 1,11/preferred spot prices.

Figure 10: Short Floor Market Value

Market value using same parameters as the ones used to price the Call Option

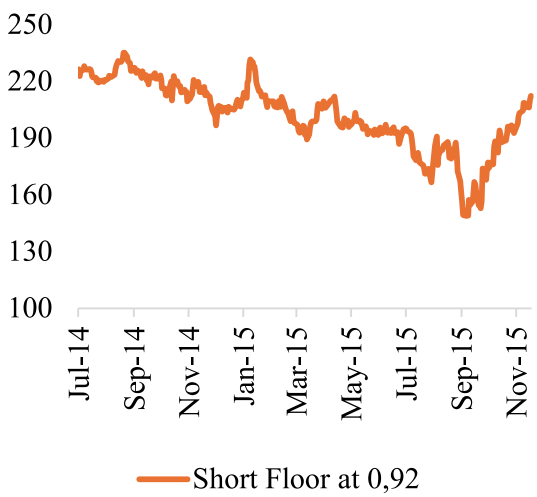
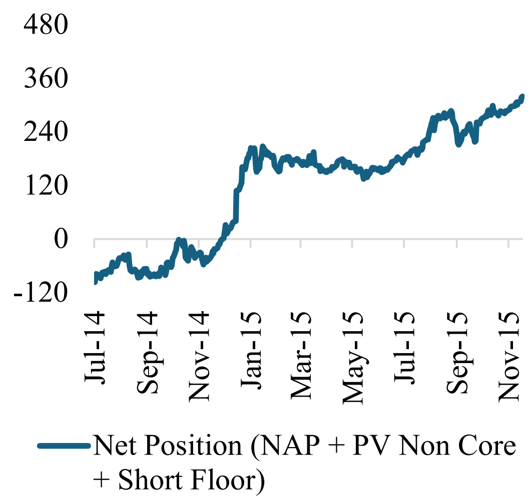


Figure 11: Revised NAP

Net position including the short floor would allow buying back earlier the original position



Source: Own Calculations

Note: Values in €Mn, unless stated otherwise

[87] Can be done in non-deliverable format (i.e. cash-settled at exercise date)

[88] Looking backwards, at the proposed €0,92/share strike of the American Floor, PT could have regained the original stake in October as well

Conclusions

The events that followed the €897Mn investment in commercial paper issued by Rio Forte, suggest a sequence of missteps and miscalculations. Common sense tells the €897Mn investment should have never been done (irrespective of the default, PT was in the middle of a large and complex M&A transaction, pressured by rating agencies), but assuming that was inevitable and a done deal (the basis of this Master Thesis), things should have been done differently thereafter – from the investment structure, to MoU revision, and active asset management.

PT (later named Pharol) was not doomed, it was instead victim of governance and narrow understanding of the shareholder's mandate, as there were different opportunities to contain damages and regain the original 39,7% equity stake, with massive upside potential – estimated at €1,5Bn - €2,9Bn. With the Republic of Portugal under the €78Bn EU-IMF support package and the €897Mn investment context, one can say market conditions were not ideal, but the clear understanding of the different value drivers would be more than enough.

The sale of an American Put Option at 0,92/share and the Call Options at the pre-agreed strikes, dividend retention (Pharol paid the equivalent to €143Mn dividends from 2014 to 2016), elimination of Non-Operating costs would be more than enough to do it on time, and at positive economic value. Unfortunately, Pharol chose a different path, and the result is not ideal – Oi entered creditor protection, Pharol is about to close doors and shareholders suffered significant losses.

Annexes & Appendices

Annex I - Summary Terms of the PT-Oi Swap

- PT would exchange ("Exchange") with Oi the Rio Forte commercial paper in the amount of €897Mn, in return for 474,348,720 common shares (“ON”) plus 948,697,440 preferred shares (“PN”) of Oi ("Oi Shares"); and
- PT would be granted a non-transferable American-style call option (“Call Option”) to repurchase the Oi Shares (with an exercise price of 2.0104 Brazilian reais for ON shares and 1.8529 reais for PN shares) – adjusting for the reverse stock split, this corresponds to 20.104 reais for ON shares and 18.529 reais for PN shares. The exercise price would be adjusted by the Brazilian CDI rate plus 1.5% per year; and
- The Call Option on the Oi Shares subject to the option would come into effect on the date of the Exchange and would have a maturity of 6 years, with PT ability to exercise the option expiring by 10% at the end of the first year and by 18% at the end of each following year; and
- Any amount received as a result of monetizing the Call Option, through the issuance of derivative instruments, would have to be used for exercising the Call Option; and
- […]
- The contracts would be executed as soon as all corporate approvals were obtained, and the Exchange – expected to be executed by March 31, 2015 –would be subject to approval by the Brazilian Securities and Exchange Commission (“CVM”).

Source: PT 2014 Consolidated Annual Report

Annex II – Rio Forte Selected Financials

Balance Sheet	2012	2013	Comment
Non-Current Assets	1 024 794	1 683 468	• Standard holding company with Non-Current Assets mainly composed by equity stakes in other private entities (value estimates more sensitive to assumptions) • With no apparent operational activity (e.g. no stock, debtors and limited creditors) • Company is financing long-term assets almost exclusively through ST Debt and Other (claims from Parent Company and other Group-related) • Very poor cash position relative to debt and asset composition
Intangible Assets	128	90	
Tangible Assets	0	0	
Other	1 024 666	1 683 378	
Current Assets	582 571	1 089 195	
Stock	0	0	
Debtors	0	0	
Other Debtors	582 241	1 089 023	
Cash and Equivalents	330	172	
Total Assets	1 607 365	2 772 663	
Total Shareholder Funds	797 840	753 497	
Capital	1 300 000	1 300 000	
Other	-502 160	-546 503	
Non-Current Liabilities	61 919	63 964	
Long-Term Debt	6 760	24 789	
Other	55 159	39 175	
Current Liabilities	747 607	1 955 204	
ST Debt	682 112	877 274	
Creditors	246	150	
Other	65 249	1 077 780	
Total Sh. Funds and Liabilities	1 607 366	2 772 665	

Source: Orbis. Values in €k
Note: PL figures are not available, therefore they were simulated using balance sheet information only

Income Statement	2012	2013	Comment
Net Income		-44 343	• Net Income as per the change in Total Shareholder Funds • No tax due to negative Net Income • Interests estimates based on Rio Forte commercial paper terms subscribed by PT
Tax		0	
PBT		-44 343	
Interests		-33 820	
EBIT		-10 522	
D&A		0	
EBITDA		-10 522	
Interest Coverage Ratio*		Negative	
Equivalent Credit Rating**		CCC/C	

* Interest Coverage Ratio = EBIT / Interests; ** Source: Aswath Damodaran
Note: Own calculations. Simulated figures

Annex III – Sum-of-the-Parts Valuation

Through the sum-of-the-parts valuation, it is possible to estimate the value destruction, by comparing the market value of the different assets with the on-market EV. In an event of Value Destruction (-), the sum of Rio Forte, Oi equity stake and Call Options would be higher than on-market EV (i.e. PT was adding negative value).

Year	Rio Forte (€ Mn)	Oi Swap (€Mn)	Options (€ Mn)	Net Debt (€ Mn)	Total Assets (€ Mn)	EV (€ Mn)	Difference (€ Mn)
2015	135	102	6	65	308	173	-135
2016	86	141	2	29	258	150	-108
2017	75	168	1	25	269	191	-78
2018	75	47	0	38	160	103	-57
2019	63	63	0	18	144	68	-76
2020	52	110	0	21	183	82	-101
2021	52	39	0	18	109	44	-65
2022	52	4	0	21	77	22	-55
2023	52	0	0	17	69	14	-55
2024	52	0	0	16	68	22	-46

Source: Pharol, Public Information, Own Calculations

Annex IV – Call Options Summary Terms and Conditions

Start Date	End Date	Ordinary Shares (#)	Strike Ordinary	Preferred Shares (#)	Strike Preferred
31/03/2014	31/03/2015	474 348 720	2,0104	948 697 440	1,8529
31/03/2015	31/03/2016	426 913 848	2,3246	853 827 696	2,1425
31/03/2016	31/03/2017	341 531 078	2,6415	683 062 157	2,4345
31/03/2017	31/03/2018	256 148 309	2,8546	512 296 618	2,6310
31/03/2018	31/03/2019	170 765 539	3,0802	341 531 078	2,8388
31/03/2019	31/03/2020	85 382 770	3,2480	170 765 539	2,9936
31/03/2020	31/03/2021	0	3,3692	0	3,1052

Note: American Call Option. Amortizing number of shares of 10% after year 1 and 18% thereafter. Strike upward revision as per CDI Rate + 1,50%. Terms post Oi reverse stock split

Source: PT, Oi

Annex V – American Call Options Valuation Model

Underlying Asset: Daily BRL closing spot price of #474 348 720 ordinary shares (x_o) and closing spot price of #948 697 440 preferred shares (x_p), with 10% amortization after year 1, and 18% annually thereafter (i.e fully amortized at Maturity);

Strike: Reverse stock-split adjusted strike of 2,0104 to ordinary shares price (k_o) and 1,8529 preferred share price (k_p), with accrued annual step-up linked to CDI rate (used the monthly rate, annualized) ($r_{\$R}$) plus 1,50% constant annual spread;

Time to Maturity: Maturity of 6 years (T), from the 30th of March 2015 start date (T_0), to the 30th March 2021, subject to early termination provisions (change in Pharol's voting rights, violation of non-competition clause and/or exercise terms of the American Call Options). Time to maturity ($T - t$) defined as the difference between Maturity (T) and Spot Date (t);

Interest Rate: Risk-free EURBRL interest rate differential using CDI monthly rate annualized (BRL) ($r_{\$R}$) set monthly, and daily 12m Euribor (EUR) ($r_€$). Discount factor calculated assumed a flat yield curve (illiquid BRL longer-dated maturities);

Volatility: Historical standard deviation of Oi share price ($\widehat{\sigma}_{o,p}$) (iii), calculated as the root square of the squared difference between daily price changes of ordinary or preferred shares ($\Delta x_{o,p}$) (i) and average daily changes of ordinary or preferred shares ($\overline{x}_{o,p}$) (ii) since the 19th of

July 2005 (the longest set of available data), divided by sample size (s) minus 1. Annual adjustment to 260 business days[89]:

(i) $\Delta x_{o,p} = \frac{x_t - x_{t-1}}{x_t} - 1$

(ii) $\overline{x}_{o,p} = \frac{\sum_{o,p=1}^{n} x_{o,p}}{s}$

(iii) $\widehat{\sigma}_{o,p} = \sqrt{\frac{\sum_{o,p=1}^{n}(\Delta x_{o,p} - \overline{x}_{o,p})^2}{s-1}} \times \sqrt{260}$

Scenario: Binomial tree with annual nodes, with Up ($U_{o,p}$) (iv) and Down ($D_{o,p}$) (v) scenarios priced at average plus/minus two standard deviations ($\widehat{\sigma_{o,p}}$), capitalized annually per node (n):

(iv) $U_{o,p} = (\overline{x_{o,p}} + 2 \times \widehat{\sigma}_{o,p})^n$

(v) $D_{o,p} = (\overline{x_{o,p}} - 2 \times \widehat{\sigma}_{o,p})^n$

Scenario Probability: Probability of Up (P_u) (vi) and Down (P_d) (ix) scenarios calculated using risk neutral methodology, based on the appreciation/depreciation of the future price against spot rate of the ordinary/preferred share price:

(vi) $P_u = \frac{r_{\$R} - \Delta D_{o,p}}{\Delta U_{o,p} - \Delta D_{o,p}}$

(vii) $\Delta D_{o,p} = \frac{D_{o,p}}{x_{o,p}}$

(viii) $\Delta U_{o,p} = \frac{U_{o,p}}{x_{o,p}}$

[89] Business days calculates as 365, minus 52 weekends

(ix) $P_d = (1 - P_u)$

American Call Option: Pharol is long the call options (C) (x), which reflects the right, and not the obligation, to buy the underlying asset $(x_{o,p})$ at the pre-determined strike $(k_{o,p})$, anytime from Spot (t) to Maturity (T). Its value reflects the weighted payout (i.e. probability adjusted) in the up $(CU_{o,p})$ (xi) and down $(CD_{o,p})$ (xii) scenarios, discounted at the prevailing risk-free rate $(r_{\$R})$ (the existence of both scenarios eliminates any risk).

(x) $C = \frac{1}{(1+r_{\$R})^n} \times \left(P_u \times CU_{o,p} + P_d \times CD_{o,p}\right)$

(xi) $CU_{o,p} = \max\left(0; U_{o,p} - k_{o,p}\right)$

(xii) $CD_{o,p} = \max\,(0; D_{o,p} - k_{o,p})$

American Put Option: To finance the acquisition of the American Call Options, Pharol can consider other instruments, including Put Options (e.g. by selling a Put Option, Pharol would receive a premium upfront, in exchange to being obliged – instead of having the right – to buy Oi shares at the pre-determined strike price). Pricing methodology is very similar to the one used to price the American Call, whereas a short Put Option (P) (xiii) reflects the obligation, and not the right, to buy the underlying asset $(x_{o,p})$ at the pre-determined strike $(k_{o,p})$, anytime from Spot (t) to Maturity (T), weighted to the up $(PU_{o,p})$ (xiv) and down $(PD_{o,p})$ (xv) scenarios, discounted at the prevailing risk-free rate $(r_{\$R})$ (the existence of both scenarios eliminates any risk).

(xiii) $P = \frac{1}{(1+r_{\$R})^n} \times \left(P_u \times PU_{o,p} + P_d \times PD_{o,p}\right)$

(xiv) $PU_{o,p} = \min\left(0; k_{o,p} - U_{o,p}\right)$

(xv) $PD_{o,p} = \min\,(0; k_{o,p} - D_{o,p})$

Annex VI – PV Operating Losses

Future flows were discounted at the prevailing rate, as per WACC (i) standard methodology, where cost of equity and cost of debt are weighted, as per market value of Equity (E) and Debt (D), over Enterprise Value (EV). Cost of equity (r_e) (xvii) is estimated using CAPM, based on average sector unlevered β_u[90] and expected market risk premium $(r_m - r_f)$ constant at 5%[91], plus on-market risk-free rate (r_f). Cost of debt (r_d) was not calculated, because Pharol is cash positive – ignored the impact due to the low absolute level of interest rates[92].

(i) $$WACC = \frac{E}{EV} r_e + \frac{D}{EV} r_d (1 - tax)$$

(ii) $$r_e = r_f + \beta_u (r_m - r_f)$$

Using PT as vehicle to manage the defaulted commercial paper and American Call Options was inefficient from the start. Using the PV Operating Costs illustrates the size of the inefficiency – e.g. if PT managed to sort all the outstanding issues, it would have saved the equivalent to €64Mn discounted.

---

[90] Pharol had excess cash

[91] As per (Koller, Goedhart, & Wessels, 2025), which estimates US market risk premium in the range of 4,7% to 5,4% and then rounded to 5,0% (pp 287 – 288)

[92] The average of 12m Euribor in 2014 was 0,475%

Year	r_f	β_u	$E_{rm} - E_{rf}$	$WACC$	Operating Costs (€ Mn)	PV Operating Costs (€ Mn)
2014	1,05%	0,82	5,00%	5,15%	-32	-64
2015	1,18%	0,93	5,00%	5,83%	-13	-35
2016	0,55%	0,76	5,00%	4,35%	-7	-25
2017	0,78%	0,71	5,00%	4,33%	-5	-21
2018	0,94%	0,85	5,00%	5,19%	-5	-18
2019	0,67%	0,75	5,00%	4,42%	-4	-14
2020	0,15%	0,65	5,00%	3,40%	-3	-11
2021	-0,17%	0,52	5,00%	2,43%	-2	-8
2022	0,49%	0,58	5,00%	3,39%	-2	-6
2023	2,93%	0,51	5,00%	5,48%	-2	-4
2024	2,64%	0,52	5,00%	5,24%	-2	-4

Source: Pharol, Aswath Damodaran (https://pages.stern.nyu.edu/~adamodar/), Own Calculations

Annex VII – Credit Rating Selected Events

Year	Events	S&P	Moody's	Fitch
2008		BBB-	Baa2	BBB
2009		BBB	Baa2	BBB
2010	Rating already incorporates the €7,5Bn associated to the sale of PT's stake in Vivo to Telefónica	BBB	Baa2	BBB
2011	Rating negatively impacted by Portugal's finance assistance. Fitch methodology less sensitive to Sovereign's rating	BBB-	Ba1	BBB
2012	S&P and Moody's rated PT one notch higher the Republic of Portugal (with negative outlook)	BB+	Ba2	BBB
2013	Rating downward revision already anticipated by the negative outlook and Republic of Portugal performance Following the MoU announcement, S&P and Moody's announced the envisaged business combination was expected to contribute to international expansion and associated risk diversification, lower exposure to sovereign credit risk and allow capturing synergies. Therefore, open to review PT credit rating for upgrade	BB	Ba2	BBB-

Source: PT Annual Consolidated Report

Note: There was a relatively similar understanding for Oi's credit rating

Annex VIII – PT Qualified Shareholders Historical Breakdown

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Telefónica	5%	5%	10%	10%	10%	9%	10%	10%	2%	2%			
Capital Research and Mgmt									10%	10%			
Brandes	6%	5%	7%	9%	7%	10%	8%	9%	5%	4%			
GES-BES/ Novo Banco	9%	10%	9%	8%	8%	9%	9%	8%	10%	11%	10%	10%	13%
RS Holding/ Ongoing					3%	6%	5%	7%	7%	10%	10%	10%	10%
Telemar										7%	6%	10%	10%
Capital Group		5%	5%	6%	6%	2%							
CGD	5%	5%	5%	5%	5%	6%	7%	7%	6%	6%			
The Income Fund of America									5%	5%			
TPG									4%				
Cinveste	2%	2%	2%	3%	2%								
Fidelity			2%	2%	2%	2%							
Patrick de Barros Telexpress	2%	2%	2%	2%									
Joe Berardo					2%	2%							
Barclays (TRS)					2%	2%	3%	3%	3%	3%	2%		
Visabeira						2%	2%	2%	3%	3%	3%	3%	3%
JP Morgan										2%			
Deutsche Bank									2%				
Blackrock								2%	2%	2%	2%	2%	
Controlinveste						2%	2%	2%	2%	2%	2%	2%	2%
RBS									2%				
Norges Bank								2%	5%	5%	5%	5%	5%
Europacific Growth Fund									2%	2%			
UBS									2%	5%	5%	5%	4%
Morgan Stanley													2%
Paulson & Co					2%								
Telmex						4%							
Credit Suisse						2%							
Discovery Capital Mgmt													
Ontario Teachers' Pension Plan							2%				2%	2%	
BBVA							3%					2%	
BPI	3%	3%	3%										
ABN Amro			2%										
Pictet												2%	
Total	31%	37%	47%	44%	49%	59%	51%	53%	73%	80%	50%	53%	49%

Source: PT Annual Report, Own Estimates. Note: non-exhaustive. Gey shadowed rows identify BES-GES aligned shareholders

[i] Source: https://www.cmjornal.pt/economia/detalhe/estado-vende-ctt-a-552-euros-por-acao-para-publico-em-geral
[ii] Source: https://pt.wikipedia.org/wiki/Altice_Portugal
[iii] Source: https://www.publico.pt/2013/10/02/economia/noticia/cronologia-da-pt-desde-a-privatizacao-1607810
[iv] Source: https://www.jornaldenegocios.pt/empresas/telecomunicacoes/fusao-pt-oi/detalhe/e_o_primeiro_capitulo_de_uma_nova_historia_de_matriz_luso_brasileira
[v] Source: https://www.jornaldenegocios.pt/empresas/detalhe/sonae_lanca_opa_a_portugal_telecom_act2
[vi] Source: https://pt.wikipedia.org/wiki/Miguel_Horta_e_Costa
[vii] Please refer to Annex VIII for further information
[viii] Source: https://www.ft.com/content/26a59d16-c1b4-11db-ae23-000b5df10621
[ix] Please refer to Annex VIII for further context (e.g. Telefonica progressively increased its stake in PT from 5% in 2002 to 10% in 2006 – at/close the voting cap threshold)
[x] Source: https://www.jornaldenegocios.pt/empresas/detalhe/telefonica_vende_pt_na_opa_da_sonaecom
[xi] Source: https://tvi.iol.pt/noticias/portugal/europa/sonaecom-ja-conta-com-telefonica-para-se-desfazer-da-vivo
[xii] Source: https://tek.sapo.pt/noticias/negocios/artigos/pt-recusa-proposta-de-57-mil-milhoes-para-vender-vivo
[xiii] Source: https://www.jornaldenegocios.pt/empresas/detalhe/como_a_pt_vendeu_a_vivo_pelo_triplo_do_valor
[xiv] Source: https://cnnportugal.iol.pt/economia/mercados/oficial-telefonica-confirma-possibilidade-de-opa-a-pt#:~:text=A%20Telef%C3%B3nica%20assumiu%20oficialmente%20%C3%A0%20Comiss%C3%A3o%20do,para%20j%C3%A1%2C%20ainda%20n%C3%A3o%20tomou%20qualquer%20decis%C3%A3o
[xv] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xvi] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xvii] Source: https://mz-filemanager.s3.amazonaws.com/6aebbd40-9373-4b5a-8461-9839bd41cbbb/file_manager/36d35f7c-348f-4ef7-b85b-05a73a51f0db/comunicado_ao_mercado_memorando_de_entendimentos_para_a_uniao_das_atividades_da_oi_s_a_e_portugal_telecom.pdf
[xviii] Source: https://mz-filemanager.s3.amazonaws.com/6aebbd40-9373-4b5a-8461-9839bd41cbbb/file_manager/36d35f7c-348f-4ef7-b85b-05a73a51f0db/comunicado_ao_mercado_memorando_de_entendimentos_para_a_uniao_das_atividades_da_oi_s_a_e_portugal_telecom.pdf
[xix] As per Clause 3.1.6 of the MoU
[xx] Source: https://www.publico.pt/2014/08/03/economia/noticia/cronologia-da-derrocada-do-bes-1665280
[xxi] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xxii] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xxiii] Source: https://www.pharol.pt/cdn/frontend/webpage/420-pt-a-pt-e-a-oi-reafirmam-o-seu-apoio-a-combinacao-de-negocios-1712844737.pdf
[xxiv] Source: https://www.publico.pt/2014/07/11/economia/noticia/pt-passa-a-ter-256-da-oi-em-vez-de-38-1662694
[xxv] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xxvi] Source: https://expresso.pt/economia/pacheco-de-melo-sai-da-pt-portugal=f880729
[xxvii] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xxviii] Source: https://www.publico.pt/2014/10/07/economia/noticia/zeinal-bava-demitese-da-oi-e-da-pt-1670816
[xxix] Source: https://www.bloomberg.com/news/articles/2014-07-18/oi-cut-to-junk-by-s-p-as-rioforte-default-hits-portugal-telecom
[xxx] Source: https://cnnportugal.iol.pt/economia/portugal-telecom/pj-procurou-relatorio-nas-buscas-a-pt
[xxxi] Source: https://exame.com/mundo/portugal-telecom-e-alvo-de-buscas-por-suspeita-de-fraude/
[xxxii] Source: https://sicnoticias.pt/especiais/ges/2014-07-09-Expresso-diz-que-CMVM-esta-a-investigar-compra-da-PT-ao-BES#:~:text=regulador%20dos%20mercados.%20Segundo%20o%20Expresso%20Di%C3%A1rio%2C,da%20RioForte%2C%20uma%20das%20empresas%20do%20grupo
[xxxiii] Source: https://www.pharol.pt/cdn/frontend/webpage/420-pt-a-pt-e-a-oi-reafirmam-o-seu-apoio-a-combinacao-de-negocios-1712844737.pdf
[xxxiv] Source: https://observador.pt/2014/09/08/novo-banco-apoiara-novo-acordo-de-fusao-ptoi/
[xxxv] Source: https://expresso.pt/economia/2015-06-01-PT-SGPS-passa-a-chamar-se-PHarol#:~:text=A%20sexta%2Dfeira%2C%20dia%2029%2C%20os%20accionistas%20da,mudan%C3%A7a%20de%20nome%20da%20holding%20para%20PHarol
[xxxvi] Source: https://www.publico.pt/2015/05/29/economia/noticia/assembleia-geral-aprova-mudanca-do-nome-da-pt-para-pharol-1696470
[xxxvii] Source: https://www.tsf.pt/economia/artigo/isabel-dos-santos-oferece-121-mil-milhoes-de-euros-pela-pt/4229514
[xxxviii] Source: https://www.dn.pt/arquivo/diario-de-noticias/cronologia-principais-acontecimentos-na-relacao-entre-a-pharol-e-a-oi-10417335.html
[xxxix] Source: https://www.bancocarregosa.com/fotos/noticias/de_jpl_responde-porque_falham_as_opa_em_portugal_23.6.2015_24742559a68f1ef4c4.pdf
[xl] Source: https://dinheirovivo.dn.pt/tribunal-protege-oi-de-acoes-de-credores-durante-180-dias-12845554.html
[xli] Source: https://www.reuters.com/article/technology/oi-files-for-brazils-biggest-ever-bankruptcy-protection-idUSKCN0Z703V/
[xlii] Source: https://www.reuters.com/article/business/brazil-s-oi-exits-bankruptcy-protection-after-more-than-6-years-shares-jump-idUSNIKBN2SZ1OU/
[xliii] Source: PT Annual Report; https://observador.pt/2015/10/06/pharol-responsabiliza-ex-administradores-da-pt-revisao-da-fusao-oi/
[xliv] Source: https://www.jornaldenegocios.pt/empresas/detalhe/pt_quer_processar_deloitte_e_ex_administradores_envolvidos_no_caso_rioforte
[xlv] Source: https://www.jornaldenegocios.pt/empresas/detalhe/pharol-dispensa-aumento-de-capital-mas-nao-desiste-da-oi#:~:text=A%20empresa%20liderada%20por%20Palha%20da%20Silva,Se%20o%20fizer%2C%20ser%C3%A1%20com%20outros%20meios.
[xlvi] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[xlvii] Source: Banco Espírito Santo 2013 Annual Report
[xlviii] Source: Orbis
[xlix] Source: https://www.publico.pt/2010/03/08/economia/noticia/grupo-espirito-santo-ja-esta-em-mais-de-400-empresas-1426011
[l] Source: https://distotudo.wordpress.com/wp-content/uploads/2015/01/rf-blog.jpg
[li] Source: https://www.jornaldenegocios.pt/empresas/banca---financas/detalhe/rioforte_tinha_uma_situacao_financeira_dificil_desde_a_sua_criacao
[lii] Source: https://observador.pt/2016/04/30/bes-clientes-terao-sido-enganados-10-mil-milhoes/
[liii] Source: https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1544&context=journal-of-financial-crises
[liv] As per Annex II
[lv] Source: PT Annual Report

[lvi] Source: https://www.dn.pt/aumento-de-capital-do-bes-atrai-150-novos-investidores-12656352.html
[lvii] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[lviii] Source: https://www.dn.pt/oi-confirma-nao-pagamento-de-879-milhoes-da-rioforte-12658230.html
[lix] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[lx] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[lxi] Source: https://mz-filemanager.s3.amazonaws.com/6aebbd40-9373-4b5a-8461-9839bd41cbbb/file_manager/36d35f7c-348f-4ef7-b85b-05a73a51f0db/comunicado_ao_mercado_memorando_de_entendimentos_para_a_uniao_das_atividades_da_oi_s_a_e_portugal_telecom.pdf
[lxii] Source: https://www.pharol.pt/cdn/frontend/webpage/420-pt-a-pt-e-a-oi-reafirmam-o-seu-apoio-a-combinacao-de-negocios-1712844737.pdf
[lxiii] Please see Annex IV for Summary Terms and Conditions
[lxiv] Source: "Documento Informativo respeitante aos acordos entre a Portugal Telecom, SGPS, SA e a Oi, SA sobre os termos para prosseguir com a Combinação de Negócios cuja celebração será submetida à Assembleia Geral de Acionistas a realizar no dia 8 de setembro de 2014" (www.pharol.pt). The Definitive Agreement indicated that PT share would reach 45,9% with the conclusion of the capital structure reorganization
[lxv] PT 2014 Annual Consolidated Report
[lxvi] Source: https://telesintese.com.br/oi-confirma-a-venda-da-pt-ventures-que-detinha-as-acoes-na-unitel/#:~:text=Oi%20confirma%20a%20venda%20da%20PT%20Ventures%2C,24%20de%20janeiro%20de%202020%20%7C%2015:15.
[lxvii] Source: https://www.publico.pt/2014/03/25/economia/noticia/unitel-recusa-pagar-dividendos-a-pt-alegando-irregularidades-da-operadora-portuguesa-1629725
[lxviii] Source: https://pharol.pt/cdn/frontend/webpage/880-en-facto-relevante-relevante-divulgado-pela-oi-decisao-arbitral-unitel-1714752204.pdf
[lxix] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[lxx] Source: https://dinheirovivo.dn.pt/bes-admite-aumento-de-capital-mas-afasta-ajuda-do-estado-12650596.html
[lxxi] As per Annex VII
[lxxii] Please see Annex II
[lxxiii] As per PT Communication to the Shareholders Meeting
[lxxiv] Source: Banco Espírito Santo 2013 Annual Report
[lxxv] Source: https://cdn-sites-assets.mziq.com/wp-content/uploads/sites/39/2017/12/OiSA_Laudo_PT_20140221_port.pdf
[lxxvi] As per the Prospectus
[lxxvii] Source: https://pharol.pt/cdn/frontend/webpage/1443-pt-portugal-telecom-consent-solicitation-1715859344.pdf
[lxxviii] Source: https://pharol.pt/cdn/frontend/webpage/763-pt-resultados-da-analise-da-pricewaterhousecoopers-1714492634.pdf
[lxxix] Source: https://www.pharol.pt/cdn/frontend/webpage/410-pt-facto-relevante-divulgado-pela-oi-1712746865.pdf
[lxxx] Source: https://www.gazetadopovo.com.br/economia/apos-vender-a-pt-oi-amarga-prejuizo-de-r-44-bi-em-2014-2xaehgg978uqt4zkve8h8xo9e/
[lxxxi] Source: https://epocanegocios.globo.com/Informacao/Dilemas/noticia/2015/02/acoes-da-oi-tiveram-maior-perda-na-bolsa-em-2014.html
[lxxxii] Please refer to Annex III
[lxxxiii] Please refer to Annex V
[lxxxiv] As per Pharol Annual Consolidated Report
[lxxxv] Please refer to Annex VI