



Recommendation: Hold

We initiate a **Hold** recommendation for Telefonica. Telefonica is currently trading at $\notin 9.52$, and we have projected a share price of $\notin 10.11$ based on our discounted cash flow analysis. This represents an upside of ~5.2% to the current market price. We therefore do not believe there is enough of an upside to warrant overweighting the security.

Investment Thesis

We believe Telefonica's current share price captures its lackluster performance in recent years, and mixed prospects going forward. While we do see growth opportunities for the topline, this revenue growth isn't making its way to the bottom line, primarily due to the higher content costs in Spain, and high levels of inflation in its Hispanoamerican business. Sell side sentiment is in favour of a buy, and we believe the market is focused purely on information regarding its Spanish operations and is disregarding developments occurring elsewhere.

Our **Hold** recommendation is based on forecasted total revenue growth $\sim 6\%$ for 2016 and decreasing year on year down to a rate of 3.6% by 2020.

Operating margins are set to remain in the region of $\sim 29\%$ throughout the forecasting horizon. This is the result of German consolidation synergies, and Spanish headcount reduction, being offset by higher TV content costs, and inflationary effects on the cost base.

Capex forecasts into future periods are elevated by including the UK business, and higher cost of later technologies. We believe 2016 capex will be in region of $\sim \in 11.5$ bn and will be increasing every year.

O2 sale in the UK valued at $\sim \in 13$ bn was rejected by the EU commission. This leaves Telefonica tied to a less profitable region and its capital structure maintaining a higher level of debt for the foreseeable future

Please see the disclaimer at back of this report

for important information.

Telefonica

Hold

Company Report

Industry: European Telecoms

Key Stats					
Ticker	TEF.MC				
Shares Out	4,933.57				
Market Cap	€ 46,967.60				
Current Price	€ 9.52				
Target Price	€ 10.11				
52w high	€ 14.31				
52w low	€ 8.48				
Beta	1.08				
Dividend yield	7.5%				

Name	P/E	EV/EBITDA
Telefonica SA	15.88	7.62
Elisa OYJ	20.81	11.66
BT Group	13.84	7.44
Iliad SA	27.07	7.44
Telecom Italia	18.03	6.25
Vodafone	48.23	7.92

Kyle Barry Kyle.Barry@ucdconnect.ie

Graeme Phillips Graeme.phillips@ucdconnect.ie





I. Company Overview

Business Overview

Telefónica has expanded far and wide in Latin America and Europe to become one of the largest telecom operators in the world. Telefónica's debt-fuelled expansion mirrored Spain's own overheated economic boom and subsequent slump. Early in the 2000's it had focused on cleaning up the mess that resulted from Telefónica's poor investments during the dotcom bubble. Then, came the temptation to acquire. Telefónica bought BellSouth's Latin American mobile operations in 2004; acquired O2, a British telecoms firm, in 2006; and invested in China. By 2007 its market value exceeded €100 billion (\$150 billion).

Exhibit 1: Wireless Subscriber Growth (1)



Wireless Subscribers (000's)

As Spain's fortunes fell, Telefonica was forced into retreat, selling investments in Italy, the Czech Republic and Ireland. Last year Telefónica also agreed to sell O2. The firm decided to concentrate on core markets including Germany, where it bought E-plus, a big phone operator, and Brazil, the company's largest market by sales. It also tried to bundle together packages of television, internet, mobile and fixed lines. That required heavy investment in ultra-fast fibre: Spain now has the most extensive fibre-to-home network in Europe.

Over the course of the last 10 years its wireless customer base has grown from ~100m to ~250m. While that sounds impressive, it brought shareholders relatively little to cheer, as this didn't translate into share price growth, seen in exhibit 2 the stock now trades at a lower level than it did in 2005.

¹ Source: Bloomberg

² Source: Company Statements



Exhibit 2: Telefonica Share Price Performance vs EuroStoxx



Telefonica Share Price Performance

II. Revenue Drivers

Spanish Business

The Spanish segment of Telefonica has represented between 22.5% - 24% of the group's total revenue in the past four fiscal years (see appendix for details). In its most recent fiscal year the region returned to a positive revenue growth of 3.2%, despite losses continued losses in market share. This is largely attributed to its "Fusion" offering, which saw a 13% growth in its subscriber base for 2015 and an average revenue per user uplift of 7.3%. The offer includes mobile and fixed telephony, high speed Internet access and pay TV either via ADSL or optic fibre with prices between \notin 75 and \notin 107 a month. This is the expected to growth driver for the company in future periods as it tailors its offerings towards the higher value consumer market.





Spanish Market Share Evolution

Both business segments have seen steep revenue declines since 2010. The main contributor here is the mobile service revenue which is still seeing sharp declines in revenue. This can be attributed to the deterioration in market shares and to the declines in the blended mobile ARPU.





Exhibit 4: 2015 Spanish Revenue Breakout



Spanish Revenue Breakout

The Spanish mobile ARPU has tumbled over the last 5 years. With the blended ARPU falling from €25.40 in 2010 down to €15.30 in 2015. A drop of ~40%. This in line with the broad trend taking place amongst the mobile market with the adoption of OTT messaging services driving lower usage of the higher revenue SMS and voice services. Going forward we are expecting continued growth in the fixed income segment but at a slower rate, combined with a slowing down in the mobile losses. We expect blended mobile ARPU to continue to decrease as data continues to make up a larger portion of mobile service revenue. We think the mobile ARPU trend for 2016-2020 will mirror the decline in German ARPU from 2010-2015. We believe that the 2015 developments are reflective of what is to come in future periods in terms of revenue growth. Therefore we forecast revenue growth of 3% for years 2016-2018 and then slowing down to a more long term growth rate of 2% in 2019.

Exhibit 5: Spanish Mobile ARPU⁽³⁾



Spanish Mobile ARPU

³ Source: Bloomberg

⁴ Source: Company Presentations

© 2016, Kyle Barry and Graeme Phillips



German Business

The German business has been growing in importance over the last 4 fiscal years, with an increasing contribution to the groups' topline. Revenue in the region has gone from 8.4% in 2012 up to 14.4% in 2015. This revenue growth is mainly the result of the E-plus acquisition which was consolidated in Q4' 2014. The resulting effect of this acquisition led to a ~20% jump in market share and thus revenue growth of ~55% in 2015. The primary focus of the group for the German business moving forward is on increasing its profitability through leveraging consolidation synergies. Some effects of these synergies were evident in the Q4'15 EBITDA figures which saw 3.6% margin growth year on year. Synergies accounted for 50% of these margin improvements.

Exhibit 6: German Revenue Breakout



German Revenue Breakout

There are 3 current cost cutting initiatives in place which management aim to have completed by 2018. The leavers programme, Shop footprint reduction and in-city consolidation of facilities. As of 2015 the leavers programme is at 50% of target synergies, Shop footprint reduction is at 80% of target, and In-city consolidation is at 30% of target ⁽⁴⁾. This gives management significant room to improve on EBITDA margins in the regions moving forward. In 2015 these synergies drove a 3.6% margin expansion, moving forward we expect further expansion of 2% in 2016, 1% in 2017, and finally .5% in 2018 before leveling out at a sustainable EBITDA margin of ~27%.

Exhibit 7 : German Market Share Evolution



Exhibit 8: German Mobile ARPU





German Mobile ARPU

Germany is the only region in which there has actually been a decline in Data ARPU in recent years, down 7.3% YoY. Data makes up 52% of the mobile service revenue for the region which accounts for ~70% of total german revenue. This decline in ARPU is being offset by increases in LTE demand which now has a 19% penetration rate in the mobile subs base of 7.9m users. As a result of these conflicting developments we are expecting revenue in the region to remain flat into future periods, growth of 0% for the 2016-2020 forecasting period.

Brazilian Business

Brazil has been an important region for Telefonica with contributions of between ~20% -~22%. Revenue in the region has been falling partially due to FX headwinds and due to drops in the Blended ARPU. A lot of this decline can be explained by the deterioration of the Brazilian Real/Euro exchange rate which has gone from 2.868 in 2013 to 3.697 in 2015.



Brazil Revenue Breakout

Exhibit 9: Brazilian Revenue Breakout



During the same time period Blended mobile ARPU's also saw sharp drop from $\in 11.00$ down to $\in 6.30$. A drop of ~75%. The mobile business in Brazil currently accounts for ~60% of total revenue. In an effort to mitigate further revenue declines from the mobile business Telefonica acquired GVT which was consolidated on May 1st 2015. The resulting affect can be seen in the fixed line revenue growth for 2015 of ~15% and market share improvement to 28.1% from 16.4% in 2014.

Exhibit 10: Brazilian Mobile ARPU



Brazil Mobile ARPU

We see improved profitability for the Brazilian business in future periods as Telefonica adjusts its offerings to higher value customers; namely LTE and fiber. We believe the fixed line revenue in 2016 will see the full impact of the consolidation, thus seeing a sharp increase of ~€1.3bn to account for GVT's revenue ⁽⁵⁾. On the mobile side we forecast revenues to grow slightly as the subscriber base becomes increasingly penetrated by LTE customers (up ~10% yoy to 15% in 2015), and favourable shifts in the data ARPU (up 15% yoy in 2015) continue to play out. We believe these growth prospects will be offset by loss of market share typically in the lower value market. Combining these together we forecast revenue growth at ~14% for 2016 and then a more normalized rate of 5%, a slight premium to GDP forecasts per year thereafter.

Exhibit 11: Brazilian Market Share Evolution



Brazil Market Share Evolution



Hispanoamerica Business

The Hispanoamerica segment of Telefonica consists of operations in 8 different countries and contributes ~25% to the topline. The regions profitability has decreased in recent years due to inflation outpacing revenue growth. EBITDA margins decreased from 35.7% in 2012 down to 30.3% in 2015. The pace at which this is happening is beginning to slow. 2015 saw revenue growth of 9.4% YoY.

Exhibit 12: Hispanamerica Revenue and EBITDA growth



During that same time period there has been developments in the underlying mobile ARPU. In the most recent year the ARPU in the Hispanoamerica region as a whole was up 8.4% YoY. The key driver here is the booming smartphone and LTE penetration which grew $\sim 10\%$ and $\sim 6\%$ respectively for 2015. Current smartphone penetration is $\sim 28.6\%$. Data revenue in the region accounts for $\sim 35\%$ of mobile service revenue and is becoming of increasing importance as more and more users switch to smartphones and post-paid contracts.





Hispanoamerica Mobile ARPU



Mobile market share in the region has seen positive development in some countries and negative in others. Most notably Peru has seen sharp decline from $\sim 60\%$ market share down to $\sim 50\%$ due to low cost entrants. The fixed line market share has in the region has been quite steady with only mild deterioration.

Exhibit 14: Hispanoamerican Mobile Market Share



For our revenue forecasts we believe that the region will continue to grow in the mid to high single digits. The 2010-2015 year CAGR on a like for like basis was ~9%. For our forecasts we apply a revenue growth in the region of 8% in 2016 and then coming down at a rate of 50bps per year as the market becomes more saturated/penetrated with smart devices and the deterioration of the mobile ARPU comes with the increasing importance on data for mobile service revenue.





Hispanomerica Fixed Line Market Share

⁵ Source: Vimpelcom Financial Statements

⁶Source: http://www.reuters.com/article/us-telefonica-m-a-ckh-holdings-eu-idUSKCN0XM1WZ



UK Business

The UK business was reported as discontinued operations in the 2015 statements due to the agreement of a sale by Telefonica to Hutchinson for a price of ~€13bn ⁽⁶⁾. Management were confident that this sale would go through without any issues, and had intended to draw down debt, and pay an increase of €0.30c of dividend per share with the ~€13bn cash deal. This was rejected on the 25th of April 2016. The EU competition commissioner rejected the proposed deal as the consolidation would lead to only 3 network operators in the market.

Exhibit 16: UK Revenue and EBITDA Growth



UK Revenue and EBITDA Growth

The current UK business contributes ~14% to Telefonica's revenue in 2015 and has been the only segment to have positive revenue growth over the 2012 – 2015 period (excluding FX changes). Revenue grew from ~ ℓ 7bn to ~ ℓ 7.7bn (growth of ~10%). The UK is Telefonica's most developed region with LTE coverage at 80%. Current LTE penetration in its ~25m subscriber base is 35% which is up 5% YoY.





UK Subscriber Base Evolution



There has been favourable developments in the underlying subscriber base in the UK with the postpaid subscriber going from 47.8% in 2010 up to 57.8% in 2015. This is important because postpaid subscribers typically have 2x-3x more ARPU than prepaid users. As a result of the sale rejection, all of our projected figures will be adjusted upward to take into account the UK business going forward. The 5 year CAGR for the UK business is ~3%. We think that being the most developed mobile region for Telefonica in terms of 4G coverage, the UK business will grow at a more normalized long term growth rate of ~2%.

Pulling it all together

In order to forecast group revenue growth we pull all of our individual revenue forecasts together.

Revenue	2015	2016	2017	2018	2019	2020
Telefonica Spain	€12,402.0	€12,774.1	€13,157.3	€13,552.0	€13,823.0	€14,099.5
Growth YoY %		3.0%	3.0%	3.0%	2.0%	2.0%
Telefonica UK	€7,697.0	€7,850.9	€8,008.0	€8,168.1	€8,331.5	€8,498.1
Growth YoY %		2.0%	2.0%	2.0%	2.0%	2.0%
Telefonica German	€7,888.0	€7,888.0	€7,888.0	€7,888.0	€7,888.0	€7,888.0
Growth YoY %		0.0%	0.0%	0.0%	0.0%	0.0%
Telefonica Brazil	€11,060.0	€12,602.0	€13,232.1	€13,893.7	€14,588.4	€15,317.8
Growth YoY %		13.9%	5.0%	5.0%	5.0%	5.0%
Telefonica Hispanoamerica	€14,387.0	€15,538.0	€16,703.3	€17,872.5	€19,034.3	€20,176.3
Growth YoY %		8.0%	7.5%	7.0%	6.5%	6.0%
Other companies and eliminations	€1,482.0	€1,482.0	€1,482.0	€1,482.0	€1,482.0	€1,482.0
Total Revenue	€54,916.0	€58,135.0	€60,470.6	€62,856.4	€65,147.2	€67,461.7
Growth YoY %		5.9%	4.0%	3.9%	3.6%	3.6%

Exhibit 18: Group Revenue Forecasts by Segment

⁸Source: Company Financial Statements

© 2016, Kyle Barry and Graeme Phillips

⁷ Source: OECD



III. Cost Drivers

Cost of Goods Sold are expected to rise, and hurt gross margins. In Spain for 2016 we should see the full effect of elevated TV content costs coming in, these only came into effect in Q4'15. Combining this with inflation outpacing revenue growth in the majority of the Hispanoamerica regions we believe gross margins will contract at a rate of 50bs per year.

Exhibit 19: Historical Inflation Rates with Forecasts ⁽⁷⁾



Brazil and Hispanoamerica Inflation Rates

Exhibit 20: Cost of Goods Sold Breakout with Forecasts (8)



COGS Breakout with Forecasts

Operating Expenses are forecast as a percentage of revenues and we see them declining as a percentage. The 2015 Opex of ~15bn contains a one off restructuring expense of $\notin 3.2bn$. ~ $\notin 2.8bn$ is being spent on headcount reduction in Spain, and the balance being spent to execute consolidation synergies in Germany and Brazil. We are expecting the majority of these synergies to be realised by 2017. We have forecast Opex as a percentage of revenue at 28% for 2016, (reduction of $\notin 3.2bn$ for one off employee provisions.) and have it contracting at a rate of 100bps per year for 2017, and then contracting by 30bps thereafter as headcount reduces at a slower rate.



Exhibit 21: Operating Expenses Breakout with Forecasts



Opex Breakout with Forecasts

Capital expenditure is currently running at a rate of ~ \in 9.5bn per year. Not suprisingly the largest portion of capex is spent in the Hispanoamerican region, with a 2015 bill of ~ \in 3bn. We believe that the breakout of capex by region will be split at the same rate going forward based on how developed the regions are in terms of 4G coverage and fiber development.

Exhibit 22: Capital Expenditure Breakout



Capital Expenditure Breakout

Management haven't indicated any increases or decreases to the current level so we have tied future capex to grow as a percentage of revenue. We adjust capex to include the UK capex going forward. This puts the 2015 capex at ~ \in 11.5bn. We see it increasing as high as ~ \in 13.5bn in future periods due to the higher cost associated with 4G and fiber based investments.



Contribuition to Group Revenue	2012	2013	2014	2015	2016	2017	2018	2019	2020
Telefonica Spain	24.05%	22.71%	23.87%	22.58%	21.97%	21.76%	21.56%	21.22%	20.90%
Telefonica UK	11.29%	11.73%	14.02%	14.02%	13.50%	13.24%	12.99%	12.79%	12.60%
Telefonica German	8.36%	8.61%	10.96%	14.36%	13.57%	13.04%	12.55%	12.11%	11.69%
Telefonica Brazil	21.84%	21.41%	22.29%	20.14%	21.68%	21.88%	22.10%	22.39%	22.71%
Telefonica Hispanoamerica	26.85%	29.54%	26.11%	26.20%	26.73%	27.62%	28.43%	29.22%	29.91%
Other companies and eliminations	7.60%	6.00%	2.70%	2.70%	2.55%	2.45%	2.36%	2.27%	2.20%

Exhibit 22: Segment Contribuition to Group Revenue

We have forecast region based capex as a function of total capex multiplied by each segments forecasted contribuition to total revenue. We believe that growth in Brazil and Hispanoamerica will outpace growth in other regions, and that they will become an increasing portion of the cost base to reflect their larger contribuition to the groups overall revenue. We have forecast the contribuition in the Hispanoamerican and Brazilian segments to increase from ~26% and ~20% up to ~30% and ~23% respectively by 2020.

Exhibit 23: Capital Expenditure Forecasts



Capital Expenditure Forecasts

Depreciation is forecast as a percentage of revenue.

Taxes are assumed to be at 25% in line with the new reductions in the Spanish corporate tax rate.



IV. Valuation

DCF Analysis

Given that Telefonica has maintained the same capital structure in the past 4 years we believe the WACC to be a suitable method to discount future cash flows.

Exhibit 24: Historical Capital Structure



Capital Structure

For WACC assumptions, we use a market risk-free rate that is based off the 10 year Spanish Sovereign debt returns. The beta calculation methodology is explained in the appendix. For our cost of debt we take the average of the historical interest expense over the historical debt. Using a tax rate of 25%, we estimate a WACC of 7.7%.

Cost of capital assumptions		
Cost of debt		6.9%
Tax rate		25.0%
After tax cost of debt		5.2%
Risk free rate		1.9%
Beta		1.08
Market risk premium		7.5%
Cost of equity		10.0%
Capital weights		
	Amount	% of total
Market value of equity	47,223.1	53.2%
Net debt	41,547.0	46.8%
Cost of capital (WACC)		7.7%

With these assumptions in place we project out future unlevered free cashflows for Telefonica for the next five years.

.



Exhibit 26: Discount Cashflow Projections

Discounted Cash Flow Model for Telefonica

Depreciation and amortization 9,99 Change in WC -12 Unlevered CFO 15,26 Less: Capital expenditures -11,62				
Latest share count 4,933.57 Weighted average cost of capital 7.7% Free cash flow buildup 2012A 2013A 2014A 2015P 201 Fiscal year 12/31/12 12/31/13 12/31/14 12/31/15 12/31 EBITDA 21,230.0 19,077.0 15,515.0 11,414.0 17,01 EBIT 10,797.0 9,450.0 6,967.0 2,897.0 7,00 tax rate 24.9% 20.9% 10.5% 4.2% 25,6 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,266 Depreciation and amortization 9,99 -12 -12 -12 12,262 2,775.9 5,266 Less: Capital expenditures -11,62 -12,262 -12,262 -12,262 -12,262				
Weighted average cost of capital 7.7% Free cash flow buildup 2012A 2013A 2014A 2015P 201 Fiscal year 12/31/12 12/31/13 12/31/14 12/31/15 12/31/ 12/31/14 12/31/15 12/31/ 12/31/14 12/31/15 12/31/ 12/31/15 12/31/ 12/31/ 12/31/14 12/31/15 12/31/ 12/31/ 12/31/14 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/31/ 12/31/14 12/31/15 12/31/ 12/31/ 12/31/14 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/31/ 12/31/15 12/31/ 12/				
Free cash flow buildup Fiscal year 2012A 2013A 2014A 2015P 201 Fiscal year end date 12/31/12 12/31/13 12/31/14 12/31/15 12/31 EBITDA 21,230.0 19,077.0 15,515.0 11,414.0 17,01 EBIT 10,797.0 9,450.0 6,967.0 2,897.0 7,01 tax rate 24.9% 20.9% 10.5% 4.2% 25.0 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,260 Depreciation and amortization 9,99 -12 -12 -12 11,62 Unlevered CFO 15,262 15,262 -12 12,262 -12 Less: Capital expenditures -11,62 -12 -12 -12 -12				
Fiscal year 2012A 2013A 2014A 2015P 201 Fiscal year end date 12/31/12 12/31/13 12/31/14 12/31/15 12/31/15 12/31/15 12/31/15 12/31/15 12/31/15 12/31/16 12/31/16 12/31/16 12/31/16 12/31/16 12/31/16 12/31/16 12/31/16 12/31/17 12/31/16 12/31/17 12/31/16 12/3				
Fiscal year end date 12/31/12 12/31/13 12/31/14 12/31/15 12/31/15 EBITDA 21,230.0 19,077.0 15,515.0 11,414.0 17,01 EBIT 10,797.0 9,450.0 6,967.0 2,897.0 7,01 tax rate 24.9% 20.9% 10.5% 4.2% 25.5 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,266 Depreciation and amortization -12 -12 -12 -12 11,62 -12 Unlewered CFO -12 -12,62 -11,62 -12,62 -12,62 Less: Capital expenditures -11,62 -11,62 -11,62 -11,62				
EBIT 21,230.0 19,077.0 15,515.0 11,414.0 17,01 EBIT 10,797.0 9,450.0 6,967.0 2,897.0 7,01 tax rate 24.9% 20.9% 10.5% 4.2% 25.0 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,26 Depreciation and amortization 9,99 -12 -12 -12 -12 Unlevered CFO 15,25 2,011,62 -11,62 -11,62 -11,62	16P 2017P	2018P	2019P	2020P
EBIT 10,797.0 9,450.0 6,967.0 2,897.0 7,01 tax rate 24.9% 20.9% 10.5% 4.2% 25.0 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,26 Depreciation and amortization -12	/16 12/31/17	12/31/18	12/31/19	12/31/20
tax rate 24.9% 20.9% 10.5% 4.2% 25.0 EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,26 Depreciation and amortization 9,99 -12 <td>18.0 17,700.6</td> <td>18,399.8</td> <td>19,007.8</td> <td>19,612.9</td>	18.0 17,700.6	18,399.8	19,007.8	19,612.9
EBIAT (NOPAT) 8,106.5 7,477.2 6,232.9 2,775.9 5,26 Depreciation and amortization 9,99 -12 -12 -12 -12 -12 15,26 -12 15,26 -12 15,26 -12,26	18.8 7,299.6	7,588.5	7,802.5	8,009.5
Depreciation and amortization 9,99 Change in WC -12 Unlevered CFO 15,26 Less: Capital expenditures -11,62	0% 25.0%	25.0%	25.0%	25.0%
Change in WC -12 Unlevered CFO 15,26 Less: Capital expenditures -11,62	64.1 5,474.7	5,691.4	5,851.8	6,007.1
Unlevered CFO 15,26 Less: Capital expenditures -11,62	99.2 10,400.9	10,811.3	11,205.3	11,603.4
Less: Capital expenditures -11,62	22.2 0.6	42.8	-49.8	-3.9
	66.3 15,875.7	16,502.7	17,057.2	17,610.5
	27.0 -12,094.1	-12,571.3	-13,029.4	-13,492.3
Less: Purchases of intangible assets	0.0 0.0	0.0	0.0	0.0
Unlevered FCF 3,63	39.3 3,781.5	3,931.4	4,027.7	4,118.2
% growth	3.9%	4.0%	2.4%	2.2%
Discount factor 6	7% 167%	267%	367%	467%
Assume cash flows are generated at: End of period				
	0.7 1.0	1.0	1.0	1.0
Present value of Unlevered FCF 3,46	63.0 3,339.9	3,223.0	3,064.9	2,908.7
Perpetuity approach				
Normalized FCF in last forecast period (t) 6,003.2				
Normalized FCF ¹⁺¹ 6,123.3				
Long term growth rate (g) 2.000%				
Terminal value 106,766.0				
Present value of terminal value 75,410.2				
Present value of stage 1 cash flows 15,999.5				
Enterprise value 91,409.7				

Using a terminal growth rate of 2%, we arrive at a firm value of \notin 91.4bn, with an equity valuation of 49.9bn or \notin 10.11 per share (upside of 5.8%).

Fair value per share		
	Perp	petuity
Enterprise value		91,409.7
Less: Net debt		-41,547.0
Less: Trapped cash		0
Equity value		49,863
Diluted shares		4,933.6
Equity value per share	€	10.11
Market premium / (discount) to fair value		(5.8%)

Exhibit 27: Fair Value per Share under Perpetual Growth Method



V. Appendix

Beta Calculation

Beta is calculated as a regression of stock excess return against market return:

$$\beta = \frac{Cov\left(R_{ex}^{(m)}, R_{ex}^{(s)}\right)}{Var\left(R_{ex}^{(m)}\right)}$$

Where ${}^{(m)}$ is the monthly market return above the monthly 10 year Spanish sovereign debt return, and ${}^{(s)}$ is the monthly total stock return above the 10 year Spanish sovereign debt return. The market return is represented by the total return of the Euro Stoxx index.

Exhibit 1: Mobile Market Share by Region

Mobile Market Share by Region						
	2012	2013	2014	2015		
Spain	36.2%	33.9%	31.2%	30.8%		
UK	26.6%	26.5%	26.9%			
Germany	16.7%	16.9%	36.9%	38.1%		
Brazil	29.1%	28.6%	28.4%	28.4%		
Argentina	29.7%	31.4%	31.3%	32.3%		
Chile	38.8%	38.7%	39.4%	36.7%		
Peru	60.0%	59.7%	55.2%	49.7%		
Colombia	21.6%	24.0%	23.5%	22.4%		
Venezuela	32.9%	32.0%	33.7%	34.2%		
Mexico	19.2%	18.5%	20.8%	22.7%		
Central America	29.7%	31.8%	31.5%	33.2%		
Ecuador	29.3%	32.6%	27.9%	29.7%		
Uruguay	37.4%	35.8%	34.4%	34.9%		

Germany 2014 contains E-plus O2 UK reported as discontinued operations in 2015

Equity Research Report



Telefonica

Fixed Line Market Share by Region						
	2012	2013	2014	2015		
Spain	48.8%	47.4%	45.1%	43.5%		
Brazil	18.8%	16.3%	16.4%	28.1%		
Argentina	30.9%	30.5%	30.3%	29.4%		
Chile	41.2%	40.2%	39.8%	39.4%		
Columbia	18.1%	18.7%	18.8%	18.1%		

Exhibit 2: Fixed Line Market Share by Region

Brazil 2015 contains GVT

Exhibit 3: Group Subscriber Mix Evolution



Telefonica Subscriber Mix Evolution

Exhibit 4: Comparables

Name	P/E	EV/EBITDA	Enterprise Value	Dividend Yield	Price/Sales
Telefonica SA	15.88	7.62	110.2bn	7.5%	1.00
Elisa OYJ	20.81	11.66	6.4bn	4.2%	3.36
BT Group	13.84	7.44	62.9bn	3.0%	1.97
Iliad SA	27.07	7.44	12.4bn	0.2%	2.53
Telecom Italia	18.03	6.25	49.0bn	0.0%	0.90
Vodafone	48.23	7.92	121.6bn	5.0%	1.44

Equity Research Report



Exhibit 5: Income Statement model for Telecom Italia

Financial Statement Model for Telefonica

Company name	Telefonica
Ticker	TEF.MC
Share price as of last close	€9.52
Latest closing share price date	30/04/2016
Latest fiscal year end date	31/12/2015
Circuit breaker:	OFF

INCOME STATEMENT

Fiscal year		2012A	2013A	2014A	2015A	2016P	2017P	2018P	2019P	2020P
Fiscal year end date		12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19	12/31/20
Revenue		62,356.0	57,061.0	50,377.0	47,219.0	58,135.0	60,470.6	62,856.4	65,147.2	67,461.7
YoY Growth %			-8.5%	-11.7%	-6.3%	23.1%	4.0%	3.9%	3.6%	3.6%
Cost of Goods Sold	*	-26,643.0	-24,249.0	-22,280.0	-22,710.0	-27,323.5	-28,723.5	-30,171.1	-31,596.4	-33,056.2
Gross Profit		35,713.0	32,812.0	28,097.0	24,509.0	30,811.6	31,747.1	32,685.3	33,550.8	34,405.5
Gross Margin		57.3%	57.5%	55.8%	51.9%	53.0%	52.5%	52.0%	51.5%	51.0%
Operating Costs		-15,700.0	-15,428.0	-14,289.0	-14,936.0	-16,277.8	-16,327.1	-16,656.9	-16,938.3	-17,202.7
% of Revenue		25.2%	27.0%	28.4%	31.6%	28.0%	27.0%	26.5%	26.0%	25.5%
Other Expenses		1,217.0	1,693.0	1,707.0	1,841.0	1,802.2	1,874.6	1,948.5	2,019.6	2,091.3
% of Revenue		2.0%	3.0%	3.4%	3.9%	3.1%	3.1%	3.1%	3.1%	3.1%
EBITDA		21,230.0	19,077.0	15,515.0	11,414.0	17,018.0	17,700.6	18,399.8	19,007.8	19,612.9
Margin %		34.0%	33.4%	30.8%	24.2%	29.3%	29.3%	29.3%	29.2%	29.1%
Depreciation and Amortization		-10,433.0	-9,627.0	-8,548.0	-8,517.0	-9,999.2	-10,400.9	-10,811.3	-11,205.3	-11,603.4
Profit from ordinary activities (EBIT)		10,797.0	9,450.0	6,967.0	2,897.0	7,018.8	7,299.6	7,588.5	7,802.5	8,009.5
Margin %		17.3%	16.6%	13.8%	6.1%	12.1%	12.1%	12.1%	12.0%	11.9%
Pretax profit		5,863.0	6,280.0	3,635.0	311.0	4,458.7	4,765.1	5,079.3	5,318.4	5,550.2
Taxes		-1,461.0	-1,311.0	-383.0	-13.0	-1,114.7	-1,191.3	-1,269.8	-1,329.6	-1,387.5
Net income from continuing operations		4,402.0	4,969.0	3,252.0	298.0	3,344.0	3,573.8	3,809.5	3,988.8	4,162.6
Margin %		7.1%	8.7%	6.5%	0.6%	5.8%	5.9%	6.1%	6.1%	6.2%
Profit after tax from discontinued operations					2,582.0					
Non controlling interests		-475.0	-376.0	-251.0	-135.0					
Net Income for Period		3,927.0	4,593.0	3,001.0	2,745.0					
Basic shares outstanding		4,603.5	4,736.4	4,680.8	4,789.4	4,789.4	4,789.4	4,789.4	4,789.4	4,789.4
Impact of dilutive securities		2.0	4.8	45.0	144.2	144.2	144.2	144.2	144.2	144.2
Diluted shares outstanding		4,605.5	4,741.2	4,725.8	4,933.6	4,933.6	4,933.6	4,933.6	4,933.6	4,933.6
Basic EPS		\$0.85	\$0.97	\$0.64	\$0.57	\$0.70	\$0.75	\$0.80	\$0.83	\$0.87
Diluted EPS		\$0.85	\$0.97	\$0.64	\$0.56	\$0.68	\$0.72	\$0.77	\$0.81	\$0.84

Equity Research Report



Exhibit 0: Segment Data Breakout											
	2012	% of Total	2013	Growth yoy%	% of Total	2014	Growth yoy%	% of Total	2015	Growth yoy%	% of Total
Revenue	€62,356.0		€57,061.0	-8.5%		€50,377.0	-11.7%		€54,916.0	9.0%	
Telefonica Spain	€14,996.0	24.0%	€12,959.0	-13.6%	22.7%	€12,023.0	-7.2%	23.9%	€12,402.0	3.2%	22.6%
Telefonica UK	€7,042.0	11.3%	€6,692.0	-5.0%	11.7%	€7,062.0	5.5%	14.0%	€7,697.0	9.0%	14.0%
Telefonica German	€5,213.0	8.4%	€4,914.0	-5.7%	8.6%	€5,522.0	12.4%	11.0%	€7,888.0	42.8%	14.4%
Telefonica Brazil	€13,618.0	21.8%	€12,217.0	-10.3%	21.4%	€11,231.0	-8.1%	22.3%	€11,060.0	-1.5%	20.1%
Telefonica Hispanoamerica	€16,741.0	26.8%	€16,855.0	0.7%	29.5%	€13,155.0	-22.0%	26.1%	€14,387.0	9.4%	26.2%
Other companies and eliminations	€4,739.1	7.6%	€3,423.7	-27.8%	6.0%	€1,360.2	-60.3%	2.7%	€1,482.0	9.0%	2.7%
EBITDA	€21,231.0		€19,077.0	-10.1%		€15,515.0	-18.7%		€13,239.0	-14.7%	
Telefonica Spain	€6,815.0	32.1%	€6,340.0	-7.0%	33.2%	€5,671.0	-10.6%	36.6%	€2,336.0	-58.8%	17.6%
Telefonica UK	€1,602.0	7.5%	€1,637.0	2.2%	8.6%	€1,744.0	6.5%	11.2%	€1,825.0	4.6%	13.8%
Telefonica German	€1,351.0	6.4%	€1,308.0	-3.2%	6.9%	€733.0	-44.0%	4.7%	€1,858.0	153.5%	14.0%
Telefonica Brazil	€5,161.0	24.3%	€3,940.0	-23.7%	20.7%	€3,543.0	-10.1%	22.8%	€3,573.0	0.8%	27.0%
Telefonica Hispanoamerica	€5,983.0	28.2%	€5,531.0	-7.6%	29.0%	€4,068.0	-26.5%	26.2%	€4,356.0	7.1%	32.9%
Other companies and eliminations	€318.5	1.5%	€324.3	1.8%	1.7%	-€ 248	-176.5%	-1.6%	- €709	185.6%	-1.6%
EBITDA Margin	34.0%		33.4%	-1.8%		30.8%	-7.8%		24.2%	-21.4%	
Telefonica Spain	45.4%		48.9%	7.7%		47.2%	-3.6%		18.8%	-60.1%	
Telefonica UK	22.7%		24.5%	7.5%		24.7%	1.0%		23.7%	-4.0%	
Telefonica German	25.9%		26.6%	2.7%		13.3%	-50.1%		23.6%	77.4%	
Telefonica Brazil	37.9%		32.3%	-14.9%		31.5%	-2.2%		32.3%	2.4%	
Telefonica Hispanoamerica	35.7%		32.8%	-8.2%		30.9%	-5.8%		30.3%	-2.1%	
Other companies and eliminations	6.7%		9.5%	41.0%		-18.3%	-292.7%		-47.8%	162.1%	
EBIT	€10,798.0		€9,450.0	-12.5%		€6,967.0	-26.3%		€4,422.0	-36.5%	
Telefonica Spain	€4,752.0	44.0%	€4,437.0	-6.6%	47.0%	€3,866.0	-12.9%	55.5%	€438.0	-88.7%	9.9%
Telefonica UK	€607.0	5.6%	€621.0	2.3%	6.6%	€623.0	0.3%	8.9%	€1,525.0	144.8%	34.5%
Telefonica German	€118.0	1.1%	€77.0	-34.7%	0.8%	-€693	-1000.0%	-9.9%	-€270	-61.0%	-6.1%
Telefonica Brazil	€2,843.0	26.3%	€1,831.0	-35.6%	19.4%	€1,781.0	-2.7%	25.6%	€1,657.0	-7.0%	37.5%
Telefonica Hispanoamerica	€3,221.0	29.8%	€3,007.0	-6.6%	31.8%	€2,034.0	-32.4%	29.2%	€2,115.0	4.0%	47.8%
Other companies and eliminations		-6.9%	-€523	-29.6%	-5.5%	-€644	23.1%	-9.2%	-€1,043	62.0%	-23.6%
Net Income	€3,928.0		€4,593.0	16.9%		€3,001.0	-34.7%		€2,745.0	-8.5%	



Important Disclaimer

Please read this document before reading this report. This report has been written by MBA students at Yale's School of Management in partial fulfilment of their course requirements. The report is a student and not a professional report. It is intended solely to serve as an example of student work at Yale's School of Management. It is not intended as investment advice. It is based on publicly available information and may not be complete analyses of all relevant data.

If you use this report for any purpose, you do so at your own risk. YALE UNIVERSITY, YALE SCHOOL OF MANAGEMENT, AND YALE UNIVERSITY'S OFFICERS, FELLOWS, FACULTY, STAFF, AND STUDENTS MAKE NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, ABOUT THE ACCURACY OR SUITABILITY FOR ANY USE OF THESE REPORTS, AND EXPRESSLY DISCLAIM RESPONSIBILITY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, CAUSED BY USE OF OR RELIANCE ON THESE REPORTS.