

European Telecom Services

A change in Spain – Masmovil FTTH

Spain's #4 mobile operator Masmovil (not covered) yesterday announced a wide ranging agreement with Orange Spain encompassing mobile roaming, FTTH wholesale and mobile tower sharing. We estimate the tailwind to ORA should be in the region of c.€100m mid-term or c.+0.8% of 2017E EBITDA. Yoigo/Pepe roaming partner TEF should see a c.€155m headwind, with c.75% impacting in 2017E, i.e. c.-0.7% of 2017E EBITDA, and a potential c.-0.9% drag mid-term. We view Masmovil as a highly relevant converged #4 operator in Spain, already benefiting in the low end from c.80% ADSL coverage on attractive economics and now with significant (wholesale) FTTH access as well. Masmovil has c.85% own network 4G coverage and further benefits from national roaming on 2/3/4G with ORA, which it expects to deliver c.€60m of cost savings. We are OW on ORA, EW on TEF.

Masmovil moves into FTTH – #4 high speed convergence operator: Yesterday Masmovil announced a three-pronged deal with Orange providing (1) domestic mobile roaming (as expected), (2) FTTH wholesale access, and (3) tower sharing. Masmovil's own c.85% 4G coverage will be complemented by a national 2/3/4G roaming deal with Orange, which Masmovil expects to deliver the c.€60m of savings anticipated at the time of the acquisition of Yoigo. Masmovil has agreed to a wholesale plus co-financing FTTH deal with Orange that provides Masmovil with access to ORA's FTTH network in Spain – currently c.6.8m vs. c.14m premises target, which we view as significant as it effectively delivers the 4th fully converged FTTH operator in Spain, with Masmovil already benefiting at the low end of the market from a c.80% coverage LLU network. Finally Masmovil has agreed to a tower sharing deal with ORA.

c.1% EBITDA impact for ORA and TEF: We estimate that Yoigo/Pepe/Masmovil spent €170m per year on national roaming in 2016E. Masmovil expects to deliver c.€60m of savings (according to the press release). TEF is the current Yoigo/Pepe roaming partner, and we estimate c.€155m potential revenue/EBITDA risk, i.e. c.0.9% of 2017E EBITDA – likely to partially transition off post-2017. For ORA, even adjusting for the cost savings anticipated by Masmovil, we expect at least c.€100m revenue/EBITDA contribution, worth a c.0.8% tailwind to 2017E EBITDA.

Masmovil increasingly relevant Spanish #4: Masmovil already had a credible low-end quad-play strategy through combining Yoigo's national mobile reach with c.80% LLU coverage on attractive wholesale terms (delivered by the ORA/Jazztel remedy package). This position is now enhanced by FTTH access, albeit on wholesale rather than retail economics. On the margin Masmovil should still have a slightly tougher route to 5G and small cell mobile per our 9 September, *5G - A new dawn*, research, however benefiting from passive infrastructure regulation. The market also aligns with our 'integrated operator winners' stance per our 15 September 2016, Telecom services *still positive*, report.

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INDUSTRY UPDATE

European Telecom Services

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Masmovil – the story so far

A brief history

Masmovil has seen substantial growth and change with 10 acquisitions over the past 24 months transforming the company from a modest MVNO to a fully integrated quad-play operator, even before yesterday's announcement of the Orange FTTH wholesale access agreement. In terms key highlights we note that

- The management team has broad experience from all key telecom competitors in Spain and includes the former Jazztel Strategy director, 3 former ONO directors in strategy, operations and commercial, 3 former Vodafone directors in network deployment, general counsel and finance.
- In July 2016 Masmovil announced that Providence Equity Partners would invest between €165-200m through a long term convertible instrument implying that, assuming full conversion, Providence would become Masmovil's largest shareholder. This was undertaken to deliver financing for the Pepe and Yoigo acquisitions.
- Masmovil estimates they were the 2nd fastest growing mobile operator during 2015, seeing net portability of +78k in that year, 2nd only to Orange in the market, benefiting from eye catching pricing, e.g. €5/mth mobile plan for 1GByte of data.
- Ahead of the Orange/Jazztel remedy package acquisition, Masmovil had delivered a c.25k ADSL customer base and had a c.100k FTTH rollout plan, hence has some experience in broadband services and fibre deployments alongside their core mobile expertise.
- The ORA/Jazztel remedy package delivered bitstream access to Jazztel's c.80% coverage ADSL network at very similar economics (gross margin) as experienced by unbundlers alongside a c.750k FTTH network located in 13 densely populated urban areas in Spain including Madrid, Barcelona, Balencia, Seville and Malaga.
- Masmovil sees a specific opportunity to increasingly occupy the 'value for money' segment, with other operators pushing multiple price increases over recent months, in part to cover material TV content cost inflation. Somewhat like Iliad in France, the product portfolio will remain simplified to reduce opex and improve sales efficiency alongside online and call-centre direct channels to reduce SAC.

Significant MVNO cost savings opportunity

Masmovil has highlighted significant cost savings opportunities through MVNO roaming renegotiation, which we estimate should be delivered significantly by Jan 2017 and fully by June-2018. In the following table we summarise the various changes we anticipate. In yesterday's press release Masmovil reconfirmed their c.€60m MVNO savings target.

FIGURE 1

Masmovil MVNO cost savings drivers

Brand	Roaming partner	Current situation	Current cost	Anticipated saving
Yoigo	TEF	c.40% roaming traffic	€120m ('16E)	Shifts to ORA, savings NA
Masmovil	Orange	0.5m subs, flexible contract	€12m	c.60% saving under TEF/Yoigo terms
Pepe	TEF	0.5m subs, contract to June '18	€35m	c.60% saving under TEF/Yoigo terms

Source: Company presentation, per investor presentation on website.

The amalgamation of 3 different roaming deals should impact both Orange and TEF financials to a material extent, specifically

- We estimate based on Masmovil's company presentation that Yoigo/Pepe/Masmovil spends a combined €170m per year on national roaming. Masmovil expects to deliver c.€60m of savings, with some coming from the migration and consolidation of subs from Pepe and Masmovil into the (new) Yoigo roaming deal over time with Orange and partially through cheaper terms for the new Yoigo roaming deal itself.
- TEF is the current Yoigo/Pepe roaming partner, and we estimate c.€155m revenue/EBITDA risk, i.e. c.0.9% of 2017E EBITDA. c.75% of this revenue/EBITDA should roll off at the start of 2017E, implying c.0.7% risk to 2017E EBITDA forecasts, with the remainder dependent upon a renegotiation of the Pepe roaming deal ahead of the June '18 expiry.
- ORA appears set to lose c.€6-8m of Masmovil MVNO revenues through the cost renegotiation, but receive the (repriced) c.€120m of Yoigo revenues in 2017E plus also appearing well positioned to gain the Pepe MVNO traffic post June '18. Therefore even adjusting for the cost savings anticipated by Masmovil we expect at least c.€100m revenue/EBITDA contribution mid-term, worth a c.0.8% tailwind to 2017E EBITDA pro-forma.

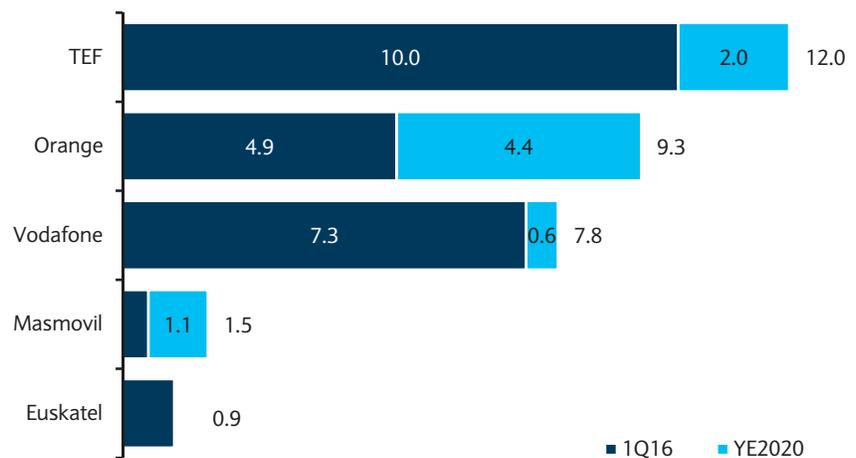
FTTH deal shifts the goalposts again

Masmovil has agreed a wholesale plus co-financing deal with Orange that provides Masmovil with access to the entire ORA FTTH network in Spain – currently c.6.8m vs. c.14m premises target, which we view as significant as it effectively delivers a 4th fully converged FTTH national operator in Spain.

Masmovil is already fully converged on ADSL given the c.80% LLU access acquired as part of the Orange/Jazztel remedy package, however with Spain rapidly transitioning to FTTH it could be argued to be somewhat left behind in fixed. An FTTH deal was not a requirement of the ORA/Jazztel remedies, but appears a logical step as part of roaming negotiations.

Now that the operator is fully converged, with attractive ADSL economics and (presumably) acceptable FTTH wholesale terms, it's difficult to argue against Spain now having a credible 4th converged operator, with a clear value focus.

FIGURE 2
NGN coverage – Households m



Source: Barclays Research estimates, Companies. Masmovil standalone build targets, pre ORA wholesale agreement

Spanish market has been recovering

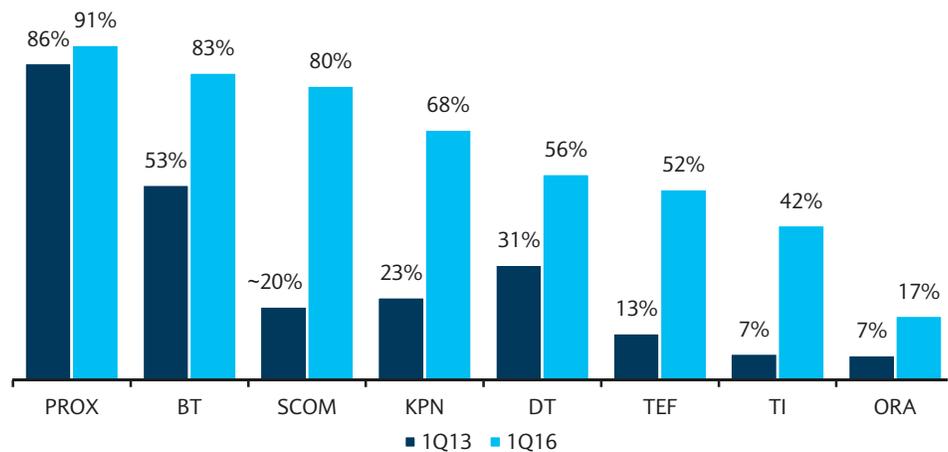
Spain recovered strongly during 2015 thanks to the success of TEF’s quadplay offering Fusion, the positive impact of FTTH investments and a number of ‘more for more’ pricing initiatives from all operators. 2016 has been more mixed so far as comparables get tougher and price increases appear to be having some negative impact on volumes. Longer term we note that both Vodafone and Orange are investing in infrastructure and content to reduce the competitive gap vs TEF, but hence should be focused on delivering higher ARPUs to maintain returns. However the announcement that the #4 mobile operator will both significantly improve its mobile economics and also gain access to FTTH wholesale access could deliver an incremental drag on market growth.

Spain has seen material improvement in its revenues and adjusted OIBDA growth over the past 3 years. This was due to a combination of 1) an improving macro environment, 2) ‘more for more’ price initiatives by Telefonica that were followed by competitors, 3) the positive impact of FTTH investment and take out (c. 50% coverage) on the fixed line trends.

NGN: TEF leading the way in FTTH

TEF has been early in rolling out a FTTH network compared to European peers. It now covers more than 50% of households with FTTH whilst most of its peers have rolled out FTTC or FTTS.

FIGURE 3
FTTx broadband household coverage (%)



Source: Barclays Research, Company

The benefits of FTTH are clear. GPON FTTH is a well tested solution to close the incumbent speed gap to cable and deliver against EU targets for 50% of households connected to 100Mbps services by 2020. GPON fibre offers potential for 2.5Gbps downstream and 1.25Gbps upstream bandwidth, vs current (Euro) DOCSIS 3.0 cable speeds of up to 1.5Gbps downstream and 0.2Gbps upstream. We view it as improbable that users will perceive any discernible difference between GPON FTTH and DOCSIS 3.0 products in the downstream direction, and relatively unlikely also in the upstream direction unless usage and contention ratios were to get very high, as we discuss below. Both GPON FTTH and cable utilise shared bandwidth. Each GPON connection typically serves up to 64 individual connections whilst cable bandwidth is shared according to node densities with typically 400-1,000 households passed, but not necessarily connected, per node. Significant statistical multiplexing is therefore required to achieve advertised per user speeds, i.e. we must assume that most of the time other users are not present. In practice, usage data supports this view, e.g. Ofcom/SamKnows data suggesting reasonably stable achieved speeds across time periods.

Lower rollout costs in Spain. Roll out costs for FTTH is EUR500-1500/home passed in typical scenarios. However many European FTTH rollouts appear to have exploited country-specific situations to overcome material investment hurdles. Spain is one of them, with particularly low costs notably because of low civil engineering costs, easy access to ducts and outside location of aggregation point.

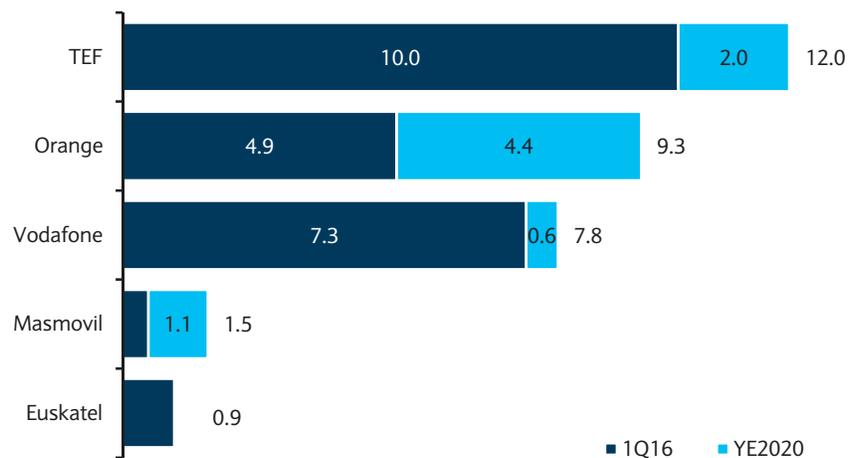
Well placed in case of change in stance from DG Connect. At a recent ETNO-Mlex regulatory conference (May 2016), Director General of DG Connect, Roberto Viola, raised the idea of moving away from technology neutrality. We would not expect the EC to explicitly back a technology as such, as the EC has a market-orientated framework. However, we see the potential for the EC to look to reward deeper investment (*this is particularly relevant in the example of Orange’s FTTH rollout vs BT/DT using VDSL/Vectoring/g.Fast at much lower cost*). We see this being more of a carrot rather than stick approach with the potential for greater deregulation for those investing deeper vs greater regulation for those investing not as much. We would also expect the EC to look to reward (i.e. deregulate) incumbents that promote co-investment, or at least offer the opportunity for smaller players to invest alongside the incumbent. This is particularly relevant in the UK/Germany, where the base option is a managed wholesale product vs a co-investment option. High levels of co-investment in Spain/Portugal support this view, despite concerns on duct access in northern European markets.

...but it is not alone anymore

Whilst TEF is well advanced in terms of NGN network, it is not alone with two other players targeting between c. 40% and 50% of total households in Spain with their own infrastructure.

- With the acquisition of the cable company ONO, Vodafone covers 7.3m households and plans to cover 7.8m by YE2020 or 41% of HHs.
- After the acquisition of Jazztel ORA claims to be covering 4.9m households (partly through shared investments with TEF in circa 2m households) and plans to expand its coverage to c. 9m households by 2020E (49% of HHs).

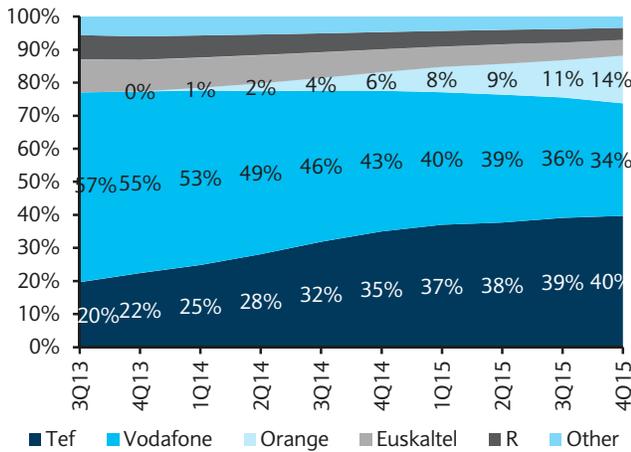
FIGURE 4
NGN coverage – Households m



Source: Barclays Research estimates, Companies. Masmovil standalone build targets, pre ORA wholesale agreement

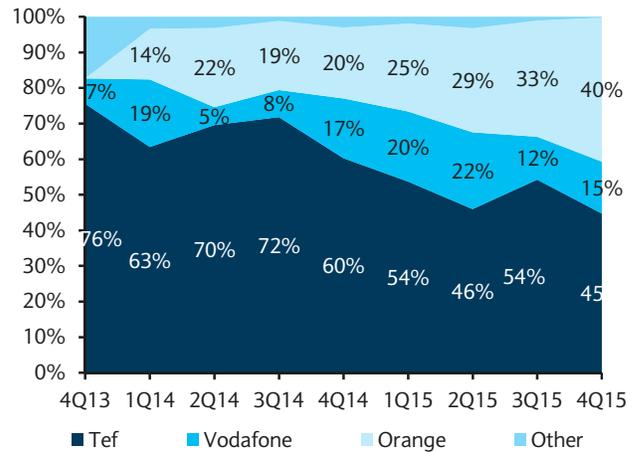
This means that TEF’s high investments in NGN do not enable it, in our view, to recreate a massive competition advantage. In fact, as can be noted in the following charts, whilst TEF subscriber trends in broadband have been recovering, the company market share is broadly flat.

FIGURE 5
Spain: NGN subscribers market share (%)



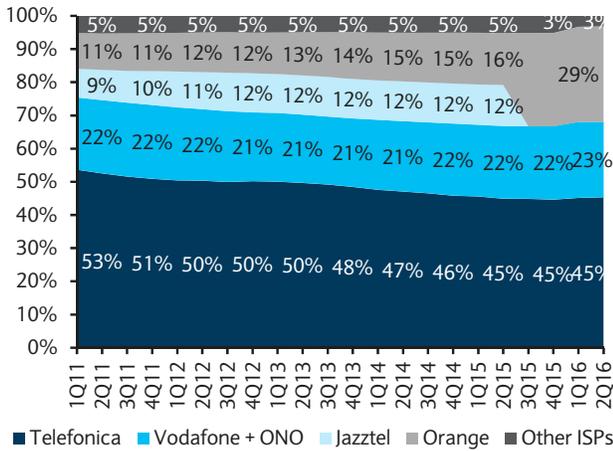
Source: Barclays Research, CNMC

FIGURE 6
Spain: NGN net adds market share (%)



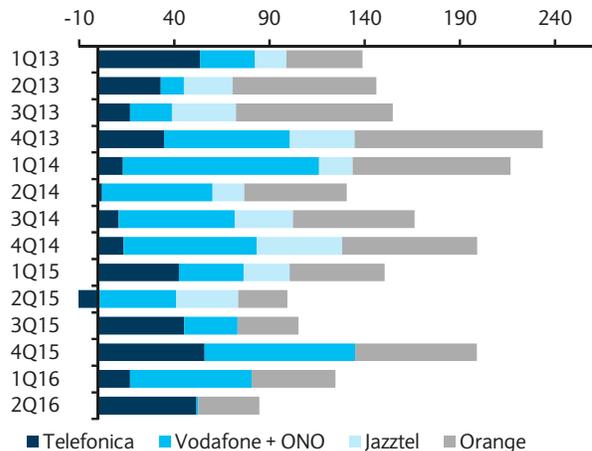
Source: Barclays Research, CNMC

FIGURE 7
Spain: Fixed Broadband market share



Source: Barclays Research, Company data

FIGURE 8
Spain: Fixed Broadband net adds – 000s



Source: Barclays Research, Company data

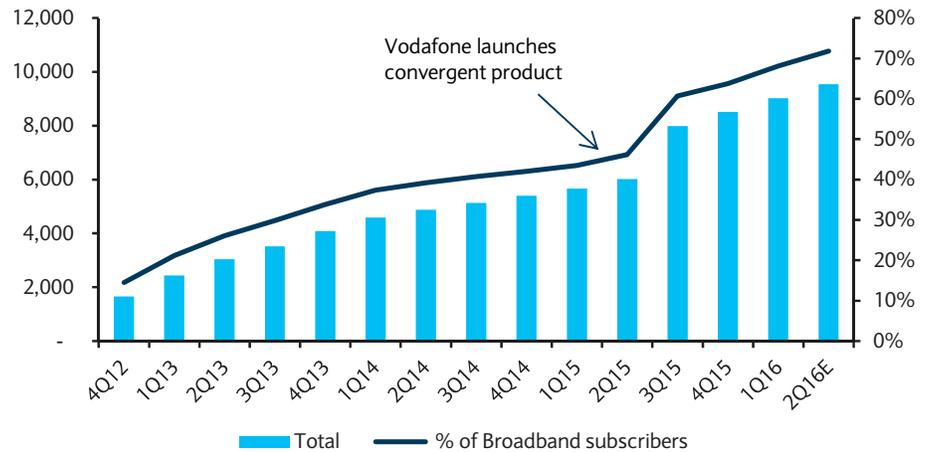
More for more and convergence coming together

One of the key tools that has been used by Telefonica to stabilise its revenue has been the launch of the Fusion products an innovative quadplay product (Fixed, Broadband, Pay TV, Mobile).

The product was initially launched as a way to recover market share thanks to attractive pricing that represented a discount of up to 20%-25%. This enabled TEF to stabilise its market share across products. TEF then introduced a number of ‘more for more’ price initiatives. Vodafone has subsequently introduced a similar product.

As a result, Spain is now a market where the proportion of converged subscribers is one of the highest, as can be seen overleaf.

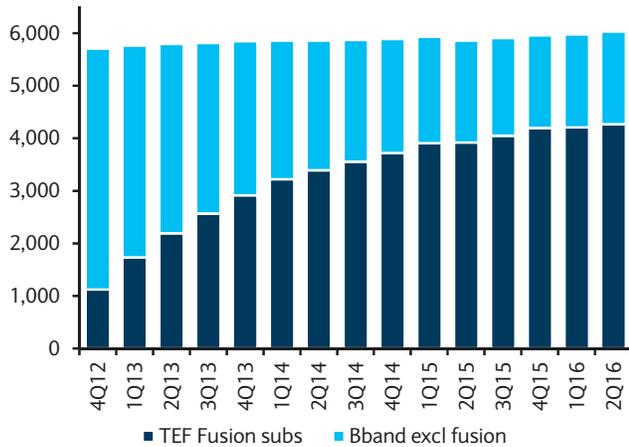
FIGURE 9
Spain: Convergent Fixed/Mobile subscribers – 000s



Source: Barclays Research, Company data

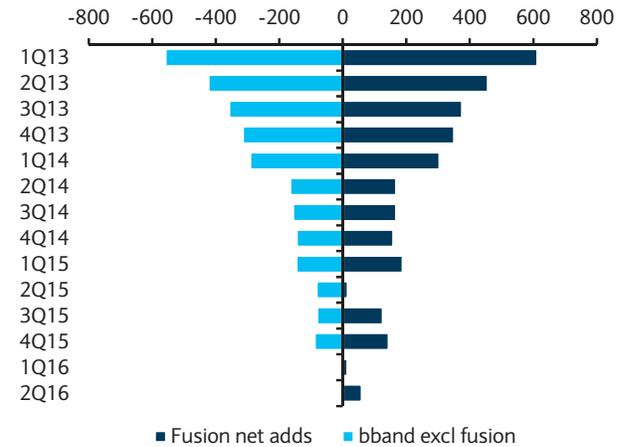
Growth in Fusion customers has been slowing down at TEF since the beginning of the year. The company indicates that churn is stable but the recent prices increase may start to have a negative impact on volumes.

FIGURE 10
Telefonica: Broadband and Fusion subscribers - 000



Source: Barclays Research, Company data

FIGURE 11
Telefonica: Broadband and Fusion net adds - 000



Source: Barclays Research, Company data

As discussed, TEF has ramped up to a number of price increases since the beginning of 2015. In May 2016 all the price increases from 2015 were in place for a FY, which explains why revenue trends in the domestic business slowed from +0.2% yoy in Q1 to -0.1% in Q2. There have been, however, new price increases since the beginning of the year that should provide a support. We estimate that price increases YTD should represent additional revenues of USD367m, of which EUR284m have been in 2016.

FIGURE 12

Change in prices from TEF

Product	Change	Applied on	Date	Subs - 000s - (e)	2015e	2016e	Full rev. impact - EURm (e)
Announced for 2015							
Fixed products							
Single play	Increase in phone rentals, VAS,	1P residential clients	Jan-15	3,176	110	120	120
Double play	Increase of EUR2 to EUR3 in monthly fee	2P residential clients	Apr-15	1,186	20	28	28
Mobile products							
Prepaid	10% increase in price per minute	Residential clients	Jan-15	3,328	30	32	32
Contract	Increase of EUR1 - EUR3 in monthly fee	Mobile residential clients on Vive plans	Feb-15	2,184	35	41	41
Quadplay - 'Fusion'	Increase of EUR5 in monthly fee	Fusion clients	May-15	3,717	117	176	176
Total impact					313	398	398
Announced for 2016							
Fixed products							
Non convergent offers	Increase of EUR3	1P and 2P residential clients	Jan-16	1,209		44	44
Mobile products							
Contract	Increase of EUR1 in monthly fee		Jan-16	2,184		26	26
Quadplay - 'Fusion'	Increase of EUR3 in monthly fee	Fusion mobile only clients	Feb-16	4,048		106	115
Quadplay - 'Fusion'	Increase of EUR3 in monthly fee	Fusion mobile only clients	Feb-16	1,477		38	42
Quadplay - 'Fusion'	Increase of EUR2-5 in monthly fee	Fusion clients	Aug-16	4,209		70	140
Total impact						284	367

Source: Barclays Research estimates, Company

Positively, competitors have been following most price increases, but we note that Masmovil remains competitive in price terms, per the following discussion.

Firstly, in terms of mobile pricing we note that Masmovil is relatively aggressive on data only tariffs, with a €5/mth SIM with 1Gbyte per month, however adding voice and SMS results in a €17/mth charge, more expensive (but with more voice minutes) vs. low end contracts from all the key operators. In the medium range they offer 3GB for €20/mth, which is relatively attractive vs. TEF, VOD and ORA, but more expensive than Jazztel (albeit with unlimited vs. 200 minutes voice calling). High end data bundles are cheapest on Masmovil vs. peers, per the following table. Therefore we'd characterise Masmovil pricing as selectively aggressive, particularly on data only, and on big bundles.

FIGURE 13

Spanish mobile pricing

	TEF	VOD	ORANGE	JAZZTEL	YOIGO	MASMOVIL
Contract Low End	Live 13	Mini S	Colibri	Mini Bono	LA DEL CERO 1.2 GB	1GB de datos
Price	13	14	11.95	5	11	16.9
Voice (Mins)	0c/min + 20c connection fee Ten SMS: 20 cts / SMS. Rest: free	0 Cents / Min+ 20c connection fee.	€0c/min + connection fee 18.15c	50	€0c/min + connection fee 18.15c	Unlimited
SMS		12 Cents / SMS	12 Cents / SMS	19c / SMS	12.1 Cents / SMS	9.68c/SMS
Internet (GB)	1.0	1.5	1.0	0.15	1.2	1.0
Contract Medium	Live 34	Smart S	Delfin	COMBI10	LA DEL CERO 5 GB	3GB de datos
Price	34	25	31.95	10	19	19.9
Voice	Unlimited	200 Min.	Unlimited	200 Min.	100 Min.	Unlimited
SMS	Unlimited	12 Cents / SMS	12 Cents / SMS	19c / SMS	12.1 Cents / SMS	9.68c/SMS
Internet (GB)	2.5	2.0	3.0	1.0	5.0	3.0
Contract High	Live 45	RED L	Ballena	COMBI25	LA SINFIN	8GB de datos
Price	45	45	41.95	25	29	26.9
Voice	Unlimited	Unlimited	Unlimited	1000 Min.	Unlimited	Unlimited
SMS	Unlimited	Unlimited	12 Cents / SMS	19c / SMS	12.1 Cents / SMS	9.68c/SMS
Internet (GB)	5.0	6.0	6.0	2.0	8.0	8.0

Source: Barclays, Company.

In fixed pricing Masmovil is the value player, particularly on double play where it offers a faster broadband product for a much cheaper price. Masmovil offers 50MB pricing with unlimited calls and 60 minutes to mobiles for €30 per month compared to competitors that offer 30MB or slower for €32 or more.

FIGURE 14

Low end double play pricing

	Telefonica	Vodafone	Jazztel	Orange	Mas Movil
Double play Tariffs	Fiber Optic 30MB	Ono 30Mb	Fiber Optic 20 MB	ADSL + Calls	Fibra50MB/ADSL
Fixed voice	Unlimited calls to landline + 550 min calls to mobile	unlimited	Unlimited to landline + 60min/month to mobile	Unlimited calls to landline + 1000 mobile minutes + 60 minutes to mobiles	Unlimited landline calls
Speed (Mbps)	30	30	20	20	50
Post-promo price	53.4	50	38.6	44.1	29.99
Effective monthly cost	32.3	41.1	38.6	33.1	29.99

Source: Barclays, Company.

Low end converged product pricing shows Masmovil as a value player again, although competing with Jazztel in this respect. Masmovil does not offer a TV product like the other players which could somewhat limit its impact. However these tariffs (and the ones above) are unlikely to yet fully reflect the terms of the new ADSL and FTTH deals from ORA so could yet become more competitive.

FIGURE 15
Low end quad play pricing

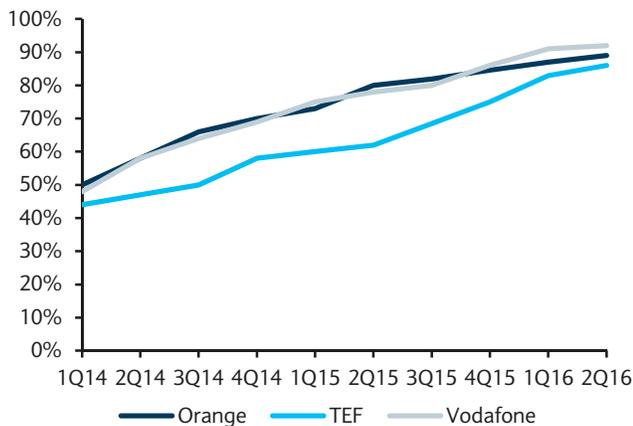
	Telefonica	Vodafone	Jazztel	Orange	Masmovil
Quadplay	Fusion Contigo 300MB	Fibra Ono 50MB Esencial Movil S	Savings Pack 1.5GB 200min + Fiber 50	Fiber 50MB + Mobile Fibra50MB/ADSL + 1GB	
Fixed voice	Unlimited calls to landline	Unlimited calls to national fixed and mobile	Unlimited to landline + 60min/month to mobile	Unlimited calls to landline + 1000 mobile minutes + 60 minutes to mobiles	Unlimited landline calls
Speed	Symmetrical 300MB	50MB	50MB	50 Mb symmetrical	50MB
TV	Freeview HD*	Vodafone TV online**	Optional	Optional	NA
Mobile Voice	200Min	200	200 Min	200 Min	Unlimited
Mobile SMS	Unlimited	12c/SMS	18.15 cents/SMS	12 Cents / SMS	9.68c/SMS
Mobile Data (GB)	2	2	1.5	2	1
Post-promo price	62.0	62.0	31.41	46.95	36.89
Effective monthly cost	62.0	56.5	31.41	41.08	36.89

Source: Barclays, Company. *A catalog of over 6,000 titles to enjoy anywhere, anytime is included. **70+ channels, videoclub with 3200 titles, free

Mobile assets: TEF lagging in 4G but reducing gap

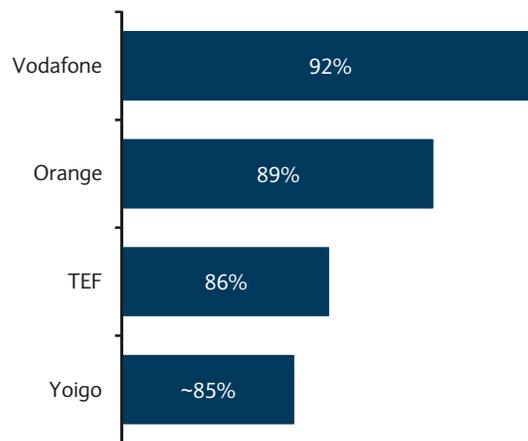
Whilst TEF lead the way in fixed NGN it has lagged its peers in terms of 4G coverage. It is now catching up, however.

FIGURE 16
Spain: Historical 4G coverage (%)



Source: Barclays Research, Company data

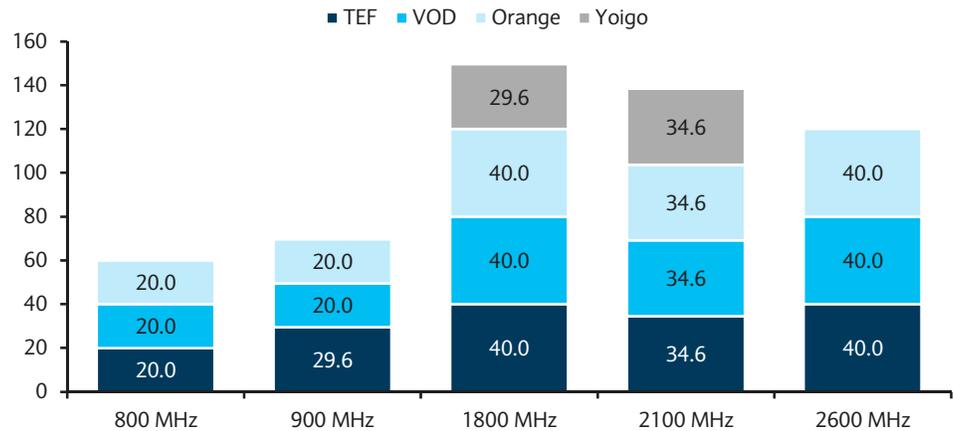
FIGURE 17
Spain: 4G coverage at 2Q16



Source: Barclays Research, Company data

In terms of spectrum holdings in Spain, TEF holds the most with 20/29.6/40/34.6/40MHz of total spectrum in the 800/900/1800/2100/2600MHz bands (this excludes TDD spectrum). Vodafone and Orange hold equal shares with 20/20/40/34.6/40MHz in the 800/900/1800/2100/2600MHz bands each. Yoigo then holds only 29.6MHz of 1800MHz and 34.6MHz of 2100MHz.

FIGURE 18
Spain Spectrum Holdings (MHz, 20MHz=2x10MHz)



Source: Barclays Research, Company data

Pay TV: Higher content costs and lower wholesale revenues in H2

On 4 December 2015, the Spanish football league disclosed the winners of three out of the 10 lots that were auctioned for the next three years’ broadcasting rights to football matches for the first and second divisions and Copa del Rey. Catalan broadcaster Mediapro together with BeIN Sports paid EUR1.9bn for ‘Lote’ 6, which provides rights to eight matches per week in the first division (with third choice option) and all the Copa del Rey (except for semi-finals and the final). TEF got ‘Lote’ 5 for EUR750m, which provides rights for one match per week of the first division (with first choice) and one match per week of the second division (also with first choice). ‘Lote’ 8, which provides rights for all games for non-residential venues broadcasting (restaurants, bars...), was allocated to a JV between Vodafone/Orange for EUR300m. The other games, notably the other matches for the first division (with second choice), will be mostly allocated to free-to-air channels. So Lote 5, 6 and 8 put together were purchased for a total EUR2,950m for three years, i.e. EUR983m per year. This was a +64% increase compared to comparable rights for the 2015/2016 season (EUR600m per year).

On 12 January 2016, TEF signed a deal with Mediapro/BeIN Sports to distribute their two football channels BeIN Sports La Liga (which includes all the Spanish content) and BeIN Sports Champion (which includes all the international content) for the 2016/2017, 2017/2018 and 2018/2019 seasons. TEF will pay EUR800m per year. As this comes in addition to the EUR250m per year that TEF will spend for Lote 5 (as discussed above), total soccer-related content costs will increase from c. EUR700m in 2015/2016 to EUR1,050m for the following three years, i.e. a 50% increase. We assume that the international content represents c. EUR100m for 2015/2016 and the following seasons.

On 11 April 2016, El Mundo (11/04/2016) reported that Vodafone and Orange would also distribute the La Liga content from Mediapro/BeIN Sports.

Based on these elements we derive the estimates shown in the table below. Beside the information above we assume the following:

- The price TEF is paying for the Mediapro/BeIN Sports content is reduced by 1/3 as it shares the content with Vodafone and Orange covering that cost. We assume a price of 1/3 of TEF’s total costs in line with the mechanics of the 2015/2016 season.

- ORA and VOD buy from TEF the right to distribute its own La Liga content. We also assume a price of 1/3 of TEF's total costs.

Overall this means that wholesale Pay TV revenues come down by EUR127m yoy for TEF whilst costs increase by EUR83m, a total net negative impact of EUR200m yoy.

FIGURE 19

Soccer: wholesale revenues and costs

2015-2016	EURm	2016-2017/2017-2018/2018-2019	EURm	% change
Wholesale revenues	200	Wholesale revenues (potential)	83	-58%
TEF costs - Spanish football content	600	TEF costs - Spanish football content	683	14%
TEF costs - International football content*	100	TEF costs - International football content*	100	0%
Total costs	700	Total costs	783	12%
Net direct contribution	-500	Net direct contribution	-700	40%

Source: Barclays Research estimates, Company

Positively, Telefonica now has three-year visibility to monetise this content as described previously.

FTTH regulation: Unregulated in 35% of the country

In February 2016, Spain's communications regulator CNMC approved the new regulations governing the country's wholesale fixed broadband market. The key elements are:

- Telefonica will have no obligation to provide wholesale access to its fibre-optic network 66 cities that represent c. 35% of the population. In these so-called 'competitive areas', TEF is not required to open up its network because there are already three or more companies offering superfast internet via fibre or cable connections. It will, however, continue to offer ULL.
- In an area representing c.30% of its FTTH coverage (population not disclosed) it will have to offer VULA (NEBA local) and continue to offer ULL.
- In the rest (17% of the FTTH coverage of TEF, population not disclosed) it will offer its all product set: VULA, NEBA Fibre, NEBA Cobre and ULL.

The CNMC said the regulation had been approved after receiving the green light from Spain's industry and economic ministries as well as the European Commission. The regulator added that it would continue to keep a close watch on the evolution of competition in the fixed broadband market and would revise its rules in three years' time, in accordance with European and Spanish regulations.

FIGURE 20

Wholesale products and price for local access

Product	Price p/m - EUR	Scope	Definition
NEBA Cobre	18	National	Bistream wholesale of BB
ULL	8.6	National	Unbundling of copper line
NEBA Fibra	EUR24 - likely to increase as move to retail-minus		Bistream wholesale of FTTH
VULA (or NEBA local)	Retail minus - TBD (Probably between ULL and Neba Fibre)		Unbundling of FTTH

Source: Barclays Research estimates, Company

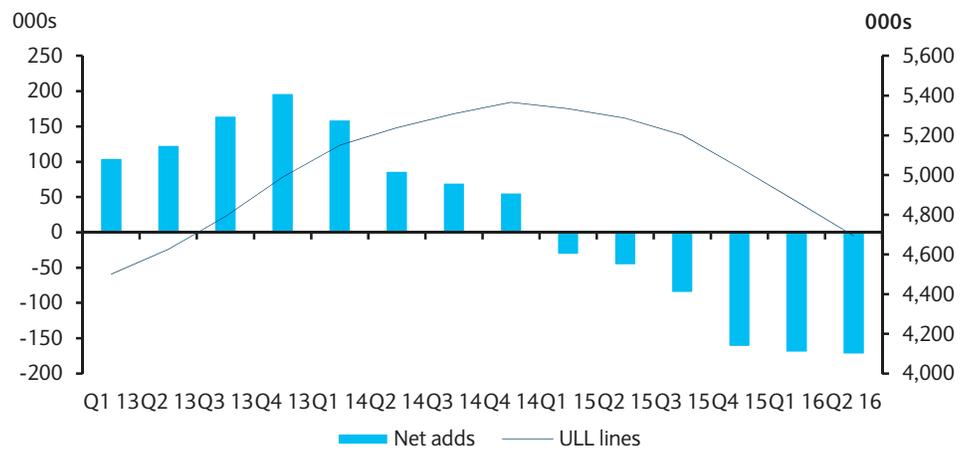
VOD and ORA’s NGN investment should depress TEF wholesale

As discussed before, both Vodafone and Orange have ambitious coverage targets for NGN in Spain. It remains to be seen whether the two players can achieve their ambitious targets considering it may prove challenging to get a proper return on investment as TEF exceeds those targets and already covers 10m households, however for Orange we view the addition of Masmovil/Yoigo as a wholesale FTTH partner as supportive of their rollout plans.

This means, however, that competition will increase for TEF, notably on the wholesale side. As can be seen in the chart below, TEF has been losing a high number of wholesale customers in the past quarters, and with the continued roll-out of VOD’s and Orange’s network, there is no reason to expect this to change, in our view.

Losing one client on the wholesale side represents a revenue loss of c. EUR9.5 per month per line. This should be partly offset by the fact that some of the clients that remain on Telefonica’s network could move from NEBA Cobre to NEBA fibre, which will come with a higher price. However, we still expect TEF wholesale telecom revenues to decline between 2015-2020e.

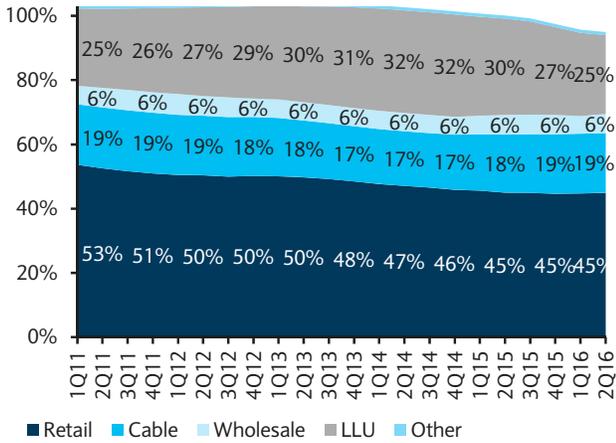
FIGURE 21
Telefonica wholesale customer trends



Source: Barclays Research, Company

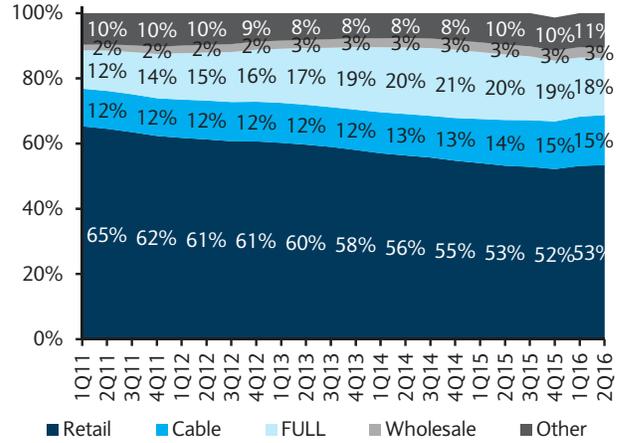
Spain fixed – in pictures

FIGURE 22
Spain: Broadband market share by technology (%)



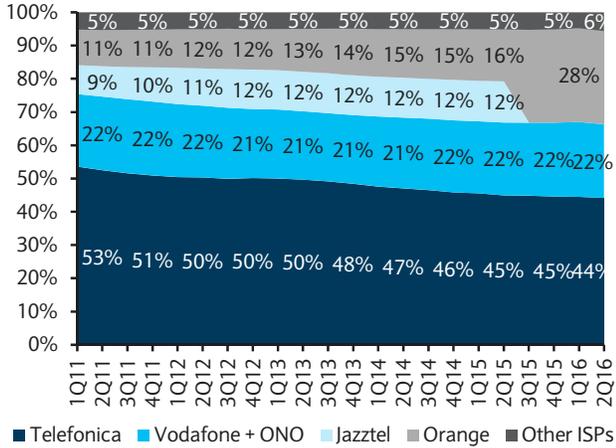
Source: Company data, Barclays Research

FIGURE 23
Spain: Voice lines market share by technology (%)



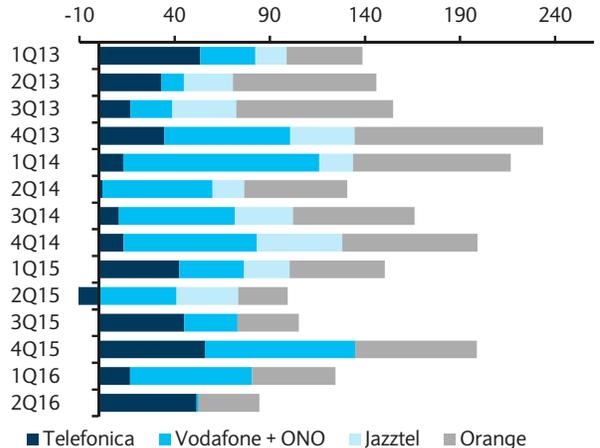
Source: Company data, Barclays Research

FIGURE 24
Spain: Broadband market share by operator (%)



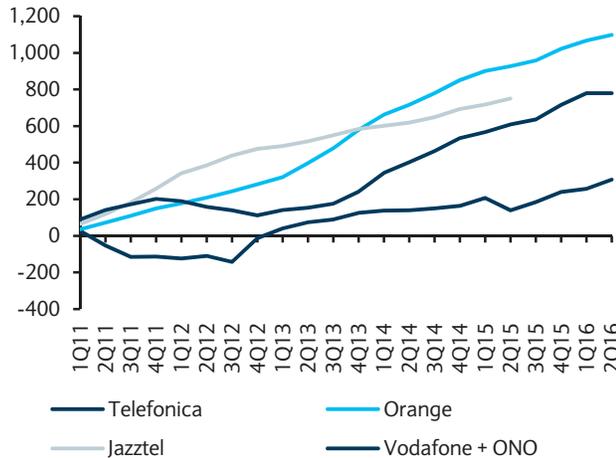
Source: Company data, Barclays Research

FIGURE 25
Spain: Broadband Quarterly net adds



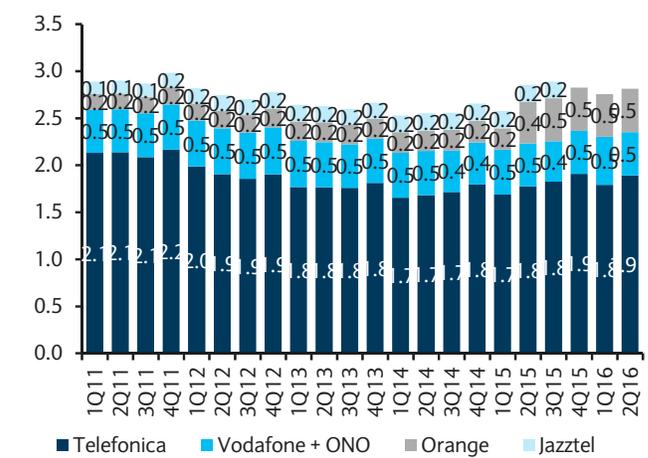
Source: Company data, Barclays Research

FIGURE 26
Spain: Cumulative net broadband adds (000s)



Source: Company data, Barclays Research

FIGURE 27
Spain: Total fixed revenues (€bn)

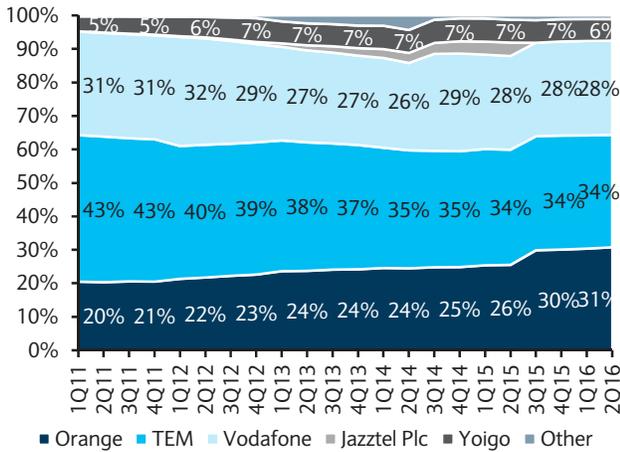


Source: Company data, Barclays Research

Spain wireless – in pictures

FIGURE 28

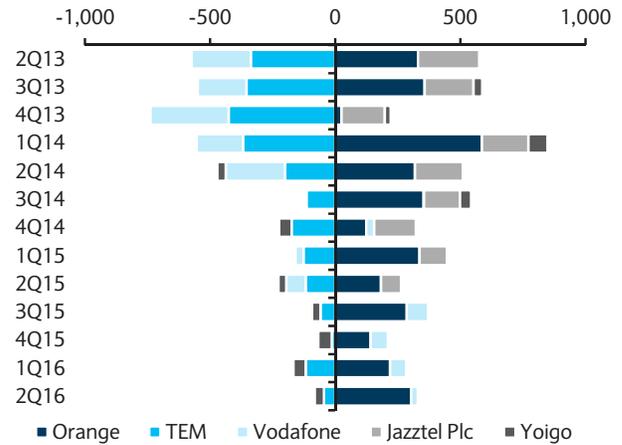
Spain - Subscriber market share (%)



Source: Company data, Barclays Research

FIGURE 29

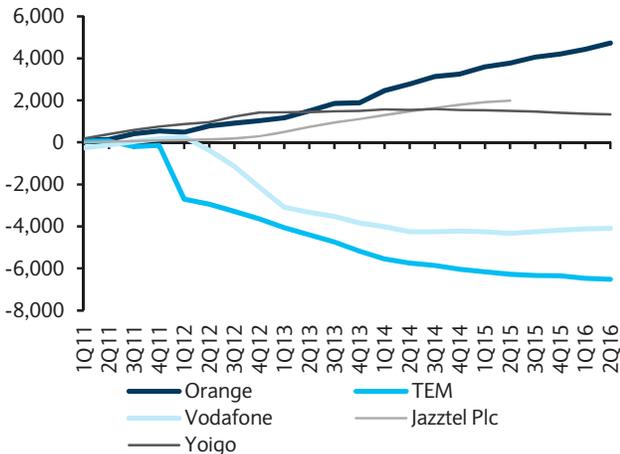
Spain - Total Subscriber Net adds (000s)



Source: Company data, Barclays Research

FIGURE 30

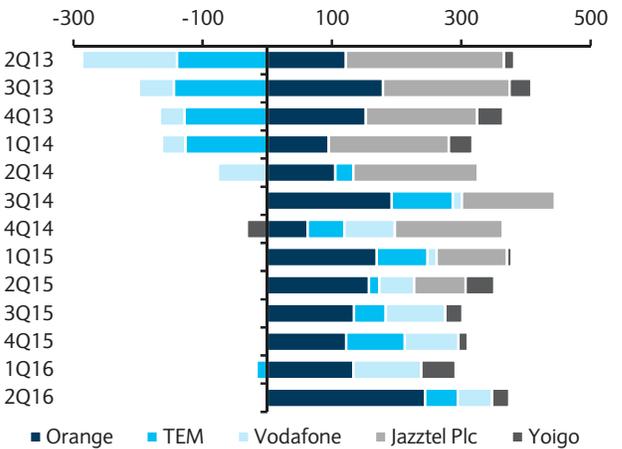
Spain – Cumulative net adds (000s)



Source: Company data, Barclays Research

FIGURE 31

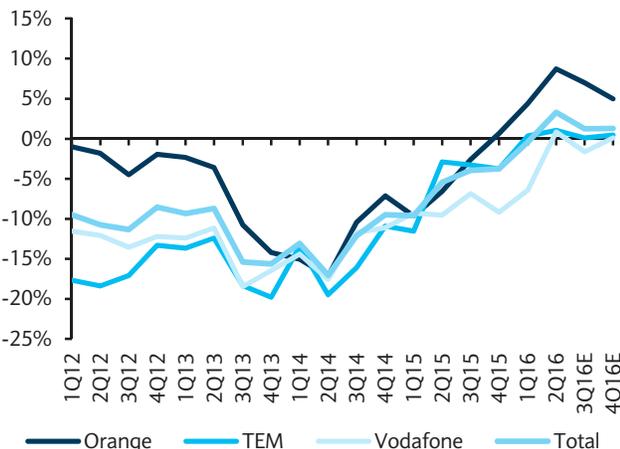
Spain - Contract Net adds (000s)



Source: Company data, Barclays Research

FIGURE 32

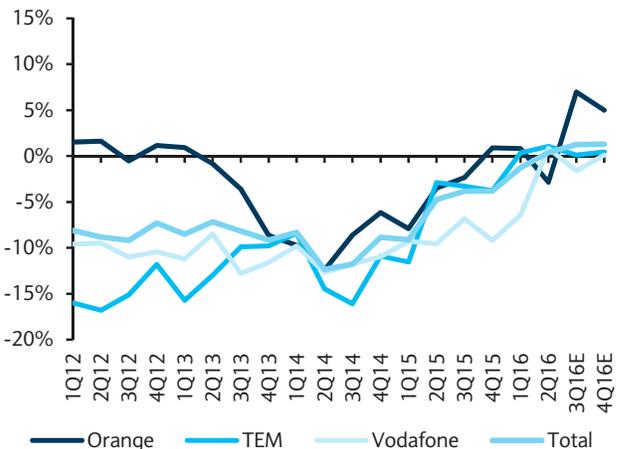
Spain – Mobile Service Revenue Growth (%)



Source: Company data, Barclays Research

FIGURE 33

Spain – Underlying Mobile Service Revenue Growth (%)



Source: Company data, Barclays Research

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We, Daniel Morris and Mathieu Robilliard, hereby certify (1) that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities or issuers referred to in this research report and (2) no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report.

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Materially Mentioned Stocks (Ticker, Date, Price)

Orange (ORAN.PA, 07-Oct-2016, EUR 13.60), Overweight/Positive, A/CD/CE/D/FA/FB/J/K/L/M/N

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Telefonica SA (TEF.MC, 07-Oct-2016, EUR 8.69), Equal Weight/Positive, A/CD/CE/D/E/J/K/L/M/N

Vodafone Group Plc (VOD.L, 07-Oct-2016, GBp 223.6), Overweight/Positive, A/CD/CE/D/J/K/L/M/N

Prices are sourced from Thomson Reuters as of the last available closing price in the relevant trading market.

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Our coverage analysts use a relative rating system in which they rate stocks as Overweight, Equal Weight or Underweight (see definitions below) relative to other companies covered by the analyst or a team of analysts that are deemed to be in the same industry (the "industry coverage universe").

In addition to the stock rating, we provide industry views which rate the outlook for the industry coverage universe as Positive, Neutral or Negative (see definitions below). A rating system using terms such as buy, hold and sell is not the equivalent of our rating system. Investors should carefully read the entire research report including the definitions of all ratings and not infer its contents from ratings alone.

Stock Rating

Overweight - The stock is expected to outperform the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

Equal Weight - The stock is expected to perform in line with the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

Underweight - The stock is expected to underperform the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

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Neutral - industry coverage universe fundamentals/valuations are steady, neither improving nor deteriorating.

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Below is the list of companies that constitute the "industry coverage universe":

European Telecom Services

Altice NV (ATCA.AS)

Bezeq (BEZQ.TA)

Bouygues SA (BOUY.PA)

BT Group PLC (BT.L)

Cellcom Israel Ltd. (CEL.TA)

Cellnex Telecom (CLNX.MC)

Com Hem (COMH.ST)

Deutsche Telekom AG (DTEGn.DE)

Drillisch (DRIG.DE)

Elisa Oyj (ELI1V.HE)

Iliad SA (ILD.PA)

Inmarsat plc (ISA.L)

IMPORTANT DISCLOSURES CONTINUED

InterXion Holding NV (INXN)	INWIT (INWT.MI)	KCOM (KCOM.L)
KPN (KPN.AS)	Liberty Global (LBTYA)	Manx Telecom (MANX.L)
NOS (NOS.LS)	Orange (ORAN.PA)	Orange Belgium (OBEL.BR)
Partner Communications Company Ltd. (PTNR.O)	Proximus (PROX.BR)	SFR Group (SFRGR.PA)
Sunrise (SRCG.S)	Swisscom (SCMN.S)	TalkTalk Telecom Group (TALK.L)
TDC (TDC.CO)	Tele2 AB (TEL2b.ST)	Telecom Italia SpA (TLIT.MI)
Telecom Italia-RSP (TLITn.MI)	Telefonica Deutschland (O2Dn.DE)	Telefonica SA (TEF.MC)
Telekom Austria (TELA.VI)	Telenet Group Holding NV (TNET.BR)	Telenor ASA (TEL.OL)
Telia Company AB (TELIA.ST)	Vodafone Group Plc (VOD.L)	

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To see a list of companies that comprise a particular industry coverage universe, please go to <http://publicresearch.barclays.com>.

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IMPORTANT DISCLOSURES CONTINUED

Orange (ORA FP / ORAN.PA)

EUR 13.60 (07-Oct-2016)

Stock Rating

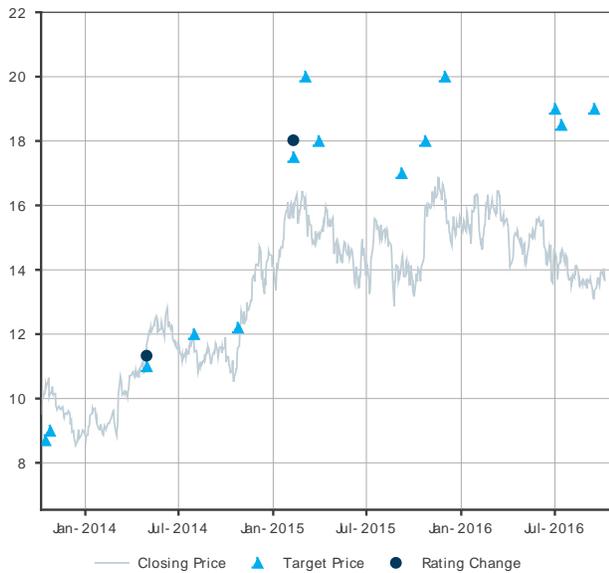
OVERWEIGHT

Industry View

POSITIVE

Rating and Price Target Chart - EUR (as of 07-Oct-2016)

Currency=EUR



Publication Date	Closing Price	Rating	Adjusted Price Target
15-Sep-2016	13.10		19.00
13-Jul-2016	14.40		18.50
01-Jul-2016	14.59		19.00
30-Nov-2015	16.36		20.00
23-Oct-2015	15.93		18.00
07-Sep-2015	14.17		17.00
30-Mar-2015	15.14		18.00
04-Mar-2015	16.05		20.00
09-Feb-2015	15.60	Overweight	17.50
24-Oct-2014	11.58		12.20
31-Jul-2014	11.75		12.00
30-Apr-2014	11.68	Equal Weight	11.00
24-Oct-2013	10.18		9.00
15-Oct-2013	10.18		8.70

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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IMPORTANT DISCLOSURES CONTINUED

Telefonica SA (TEF SQ / TEF.MC)

EUR 8.69 (07-Oct-2016)

Stock Rating

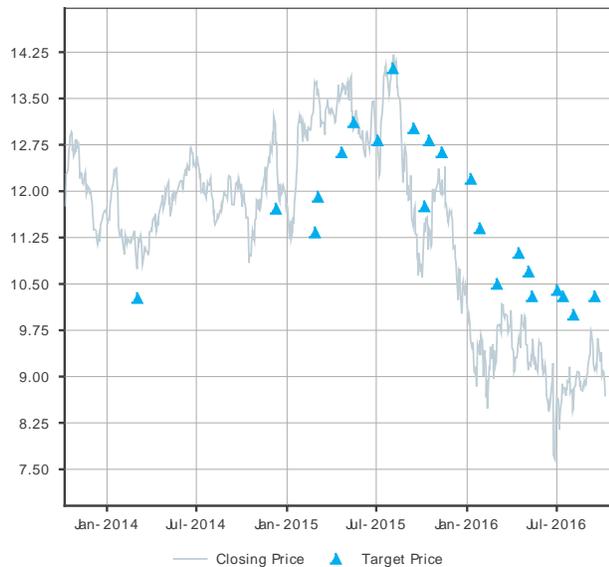
Industry View

EQUAL WEIGHT

POSITIVE

Rating and Price Target Chart - EUR (as of 07-Oct-2016)

Currency=EUR



Publication Date	Closing Price	Rating*	Adjusted Price Target
15-Sep-2016	9.11		10.30
03-Aug-2016	8.48		10.00
13-Jul-2016	8.73		10.30
01-Jul-2016	8.67		10.40
11-May-2016	9.26		10.30
04-May-2016	9.10		10.70
14-Apr-2016	9.57		11.00
01-Mar-2016	9.51		10.50
26-Jan-2016	9.49		11.40
08-Jan-2016	9.59		12.20
10-Nov-2015	11.75		12.63
15-Oct-2015	10.85		12.82
06-Oct-2015	11.06		11.75
14-Sep-2015	11.10		13.02
03-Aug-2015	13.69		13.99
03-Jul-2015	12.42		12.82
15-May-2015	12.62		13.11
21-Apr-2015	13.24		12.63
04-Mar-2015	13.26		11.91
26-Feb-2015	13.37		11.33
09-Dec-2014	12.41		11.72
03-Mar-2014	10.15		10.27

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

*The rating for this security remained Equal Weight during the relevant period.

Source: IDC, Barclays Research

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Valuation Methodology: Our valuation is a DCF based SoTP.

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IMPORTANT DISCLOSURES CONTINUED

Vodafone Group Plc (VOD LN / VOD.L)

GBP 223.6 (07-Oct-2016)

Stock Rating

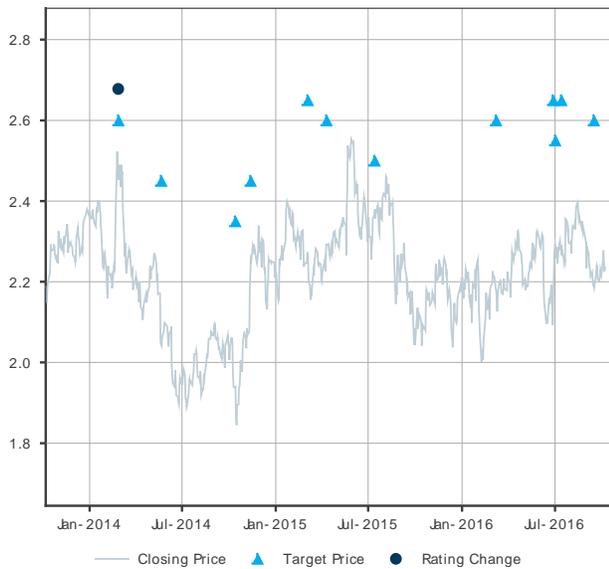
OVERWEIGHT

Industry View

POSITIVE

Rating and Price Target Chart - GBP (as of 07-Oct-2016)

Currency=GBP



Publication Date	Closing Price	Rating	Adjusted Price Target
15-Sep-2016	2.20		2.60
13-Jul-2016	2.29		2.65
01-Jul-2016	2.29		2.55
27-Jun-2016	2.09		2.65
07-Mar-2016	2.18		2.60
13-Jul-2015	2.37		2.50
10-Apr-2015	2.29		2.60
04-Mar-2015	2.27		2.65
12-Nov-2014	2.22		2.45
13-Oct-2014	1.94		2.35
21-May-2014	2.05		2.45
26-Feb-2014	2.45	Overweight	2.60

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

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Valuation Methodology: We use discounted cashflow and multiples based valuation methodology to derive our price target. We use WACCs of 7%-13%, and perpetual growth in Europe of ca1%.

Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Macro climate deterioration is a downside risk, negatively impacting the growth in mobile. On the upside, the macro climate may be better than expected.

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Orange (ORA FP / ORAN.PA)

EUR 13.60 (07-Oct-2016)

Stock Rating

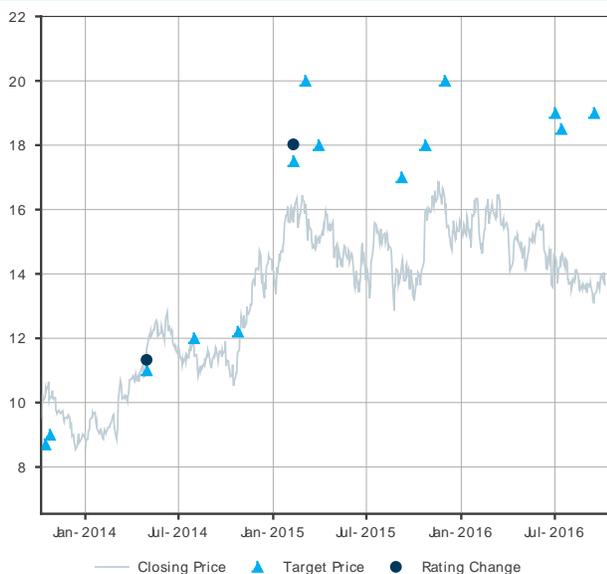
OVERWEIGHT

Industry View

POSITIVE

Rating and Price Target Chart - EUR (as of 07-Oct-2016)

Currency=EUR



Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

Source: IDC, Barclays Research

[Link to Barclays Live for interactive charting](#)

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FA: Barclays Bank PLC and/or an affiliate beneficially owns 1% or more of a class of equity securities of Orange, as calculated in accordance with US regulations.

FB: Barclays Bank PLC and/or an affiliate beneficially owns a long position of more than 0.5% of a class of equity securities of Orange, as calculated in accordance with EU regulations.

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Valuation Methodology: We use a DCF and SoP valuation methodology on a country-by-country basis to reach our price target.

Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: Our price target is based on DCF methodology; therefore, it is subject to the assumptions made in the cash flows modelled for the company. Risks to our recommendation/estimates include 1) Numericable-SFR stepping up their investment in stabilising market share, to the detriment of Orange; 2) 4G/Fibre investments may fail to insulate Orange from churn towards low end offers; and 3) macro pressures may impact negatively Orange's large Enterprise segment more than we currently forecast.

Other Material Conflicts: Barclays Bank Plc and/or an affiliate is acting as Advisor to Groupama SA in relation to the creation of a Joint Venture between Groupama SA and Orange SA.

IMPORTANT DISCLOSURES CONTINUED

Telefonica SA (TEF SQ / TEF.MC)

EUR 8.69 (07-Oct-2016)

Stock Rating

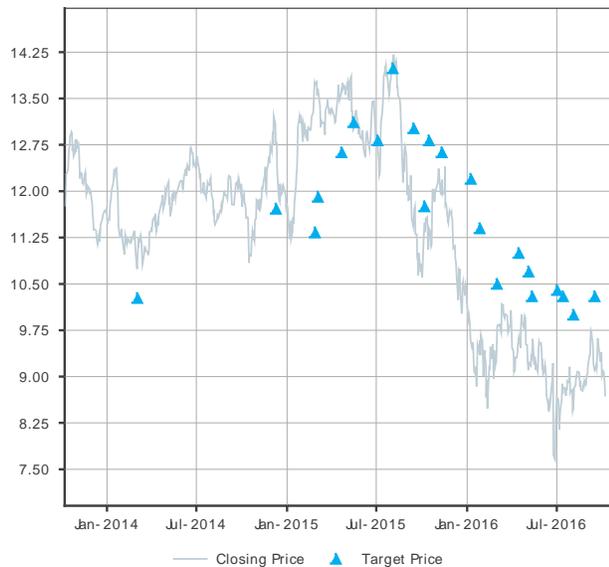
Industry View

EQUAL WEIGHT

POSITIVE

Rating and Price Target Chart - EUR (as of 07-Oct-2016)

Currency=EUR



Publication Date	Closing Price	Rating*	Adjusted Price Target
15-Sep-2016	9.11		10.30
03-Aug-2016	8.48		10.00
13-Jul-2016	8.73		10.30
01-Jul-2016	8.67		10.40
11-May-2016	9.26		10.30
04-May-2016	9.10		10.70
14-Apr-2016	9.57		11.00
01-Mar-2016	9.51		10.50
26-Jan-2016	9.49		11.40
08-Jan-2016	9.59		12.20
10-Nov-2015	11.75		12.63
15-Oct-2015	10.85		12.82
06-Oct-2015	11.06		11.75
14-Sep-2015	11.10		13.02
03-Aug-2015	13.69		13.99
03-Jul-2015	12.42		12.82
15-May-2015	12.62		13.11
21-Apr-2015	13.24		12.63
04-Mar-2015	13.26		11.91
26-Feb-2015	13.37		11.33
09-Dec-2014	12.41		11.72
03-Mar-2014	10.15		10.27

Source: Thomson Reuters, Barclays Research

Historical stock prices and price targets may have been adjusted for stock splits and dividends.

*The rating for this security remained Equal Weight during the relevant period.

Source: IDC, Barclays Research

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Valuation Methodology: Our valuation is a DCF based SoTP.

Risks which May Impede the Achievement of the Barclays Research Valuation and Price Target: The main downside risks are further macro economic deterioration in Latam and more competition than anticipated in the core markets such as Spain and Germany. Upside risks include better data monetization in Spain and consolidation happening faster than expected in Brazil.

IMPORTANT DISCLOSURES CONTINUED

Vodafone Group Plc (VOD LN / VOD.L)

GBP 223.6 (07-Oct-2016)

Stock Rating

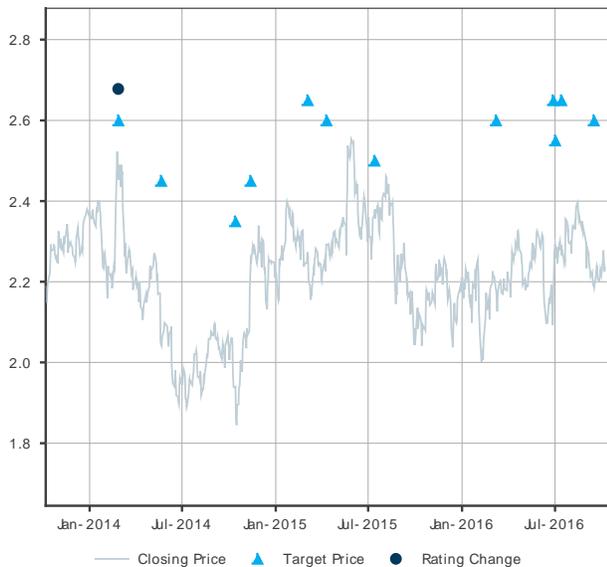
OVERWEIGHT

Industry View

POSITIVE

Rating and Price Target Chart - GBP (as of 07-Oct-2016)

Currency=GBP



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